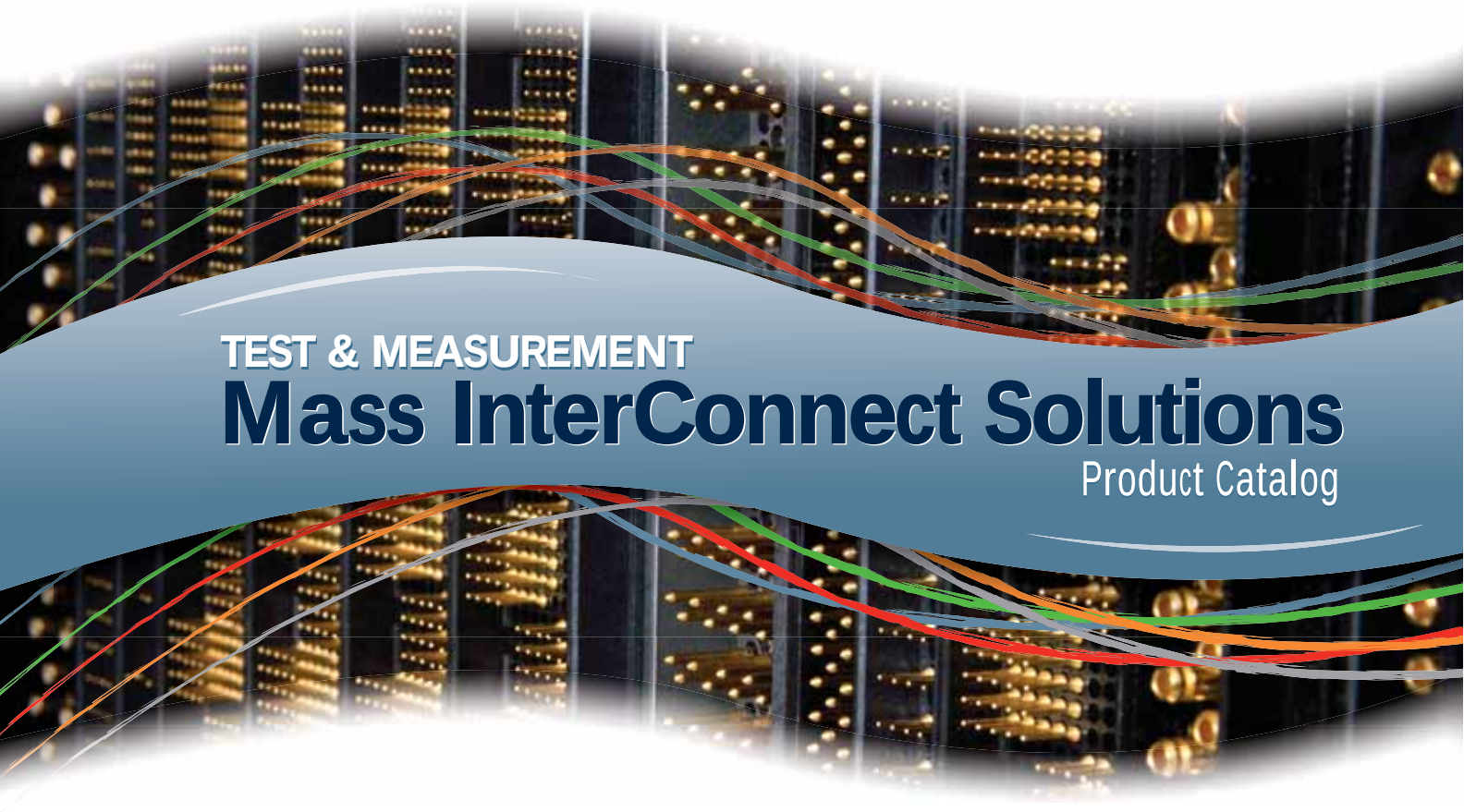


TEST & MEASUREMENT

Mass InterConnect Solutions

Product Catalog

TECHNICOME.COM
www.technicome.com
ZA de Pissaloup - Rue E. Branly - CS 10527
78197 TRAPPES CEDEX - FRANCE
Tél: (0)1 30 69 15 00 - Fax : (0)1 30 69 15 01

VPC Virginia Panel Corporation

Mass InterConnect Solutions

...creating order out of wiring chaos

For over 47 years, Virginia Panel Corporation (VPC) has provided the highest quality and most innovative Mass InterConnect Solutions on the market. As a global leader in the test and measurement industry, our goal is to meet the market's current and future needs. VPC is ISO 9001:2000 certified, assuring uncompromised quality with a commitment to continuous improvement. We work closely with our test and measurement partners to develop and design products that support industry standards. Our new InterConnect products, with lower profiles and higher densities, enable us to meet your dynamic test requirements.

This Mass InterConnect Solutions Product Catalog will simplify how you configure your Mass InterConnect solution. Exploded views and part lists for each product family are designed to help you quickly and easily identify the necessary components to complete your solution. The catalog also provides product drawings and specifications, plus valuable information in the Tech Tips and Cross Reference sections.

In addition to our Product Catalog, vpc.com presents you with an easy method to choose and associate interconnects to test instrumentation. MyVPC.com enables collaboration with project team members through message boards and attachments and enables you to request and save your quotes in one convenient place. New advancements in our online Wire+ configurators enable you to design and manage your total InterConnect solution. You can also obtain technical information about our products including drawings, user's manuals and video demonstrations.

Our employees work together to provide uncompromised quality with the highest level of precision manufacturing. Continued investments in new products are allowing our research and development engineers to meet evolving market challenges. Our newest products include the Micro Series of micro power and coaxial contacts; the iCon960, which uses the engaging mechanism of the iCon and accepts standard 90 series modules; and the 9025TR, a combination of the G12 and 9025 solutions. We welcome your input and accept the challenge to deliver Mass InterConnect products that will provide you with exceptional value.

J.P. Stowers
President

ISO 9001:2000
FM 91006

"Virginia Panel Corporation, through its people, is committed to continuous improvement, uncompromising quality, and exceptional value."

Table of contents

Educational Information

Mass InterConnect Overview 2
New Products and Applications 4
How to Configure a System 9
Wire+ Advantage Program 12
Patchcord and Cable Assembly Configuration Tools 15

Products

iCon960 16
S6, G12 and 9025TR Platform Solutions 24
2, 6, 10 Module Solutions 50
18 Module Solution 72
25, 50 and 75 Module Solutions 80
VXI Accessories 108
Additional Accessories 110
Contacts, Modules and Tools 112
QuadraPaddle Signal 116
TriPaddle Signal 128
Mini Power 138
Mini Coaxial 141
Micro Power 149
Micro Coaxial 150
High Frequency Coaxial 154
Twinaxial 164
Thermocouple 166
Fiber Optic 169
Pneumatic 171
Vacuum 174
Blank 176

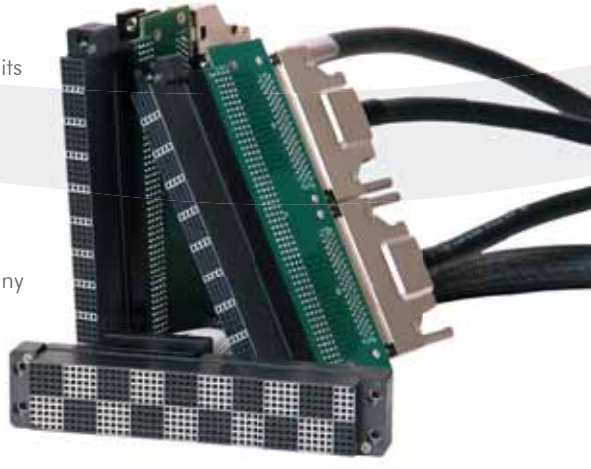
Technical Information

Cable Management 177
Tech Tips 179
Cross References 190
Index 198

Mass InterConnect

...creating order out of wiring chaos.

Mass InterConnect systems act as the connector interface between test instruments and devices/units under test (D/UUT) in test applications. Used in defense, aerospace, automotive, manufacturing, and other applications, Mass InterConnect systems are available in multiple sizes and configurations to accommodate virtually any testing requirement. VPC Mass InterConnect systems are flexible, reconfigurable, and modular by design.



» **Rugged** – Interface is reliable and rugged to protect expensive instrument connectors

» **Reliable** – Mass InterConnect components are engineered and manufactured to deliver reliable performance up to 20,000 mating cycles

» **Flexible** – VPC Mass InterConnect systems work with rack-and-stack, PXI, PCI, VXI, LXI, VME, or custom platforms

» **Modular** – Available in sizes from 2 to 75 module positions

» **Simple** – One system can connect from 10 to over 17,000 connection points, eliminating the multitude of cables and connections required by many test system configurations

» **Easy** – Quickly and easily connect and disconnect unit under test

» **Consolidates** – Mass InterConnect solutions enable consolidation of multiple test resources by accommodating a wide range of analog, digital, RF, fiber optic, power, thermocouple, pneumatic and vacuum connectors in a single interface

A complete system solution includes everything from the test instrument to the D/UUT.

Receiver: A rugged InterConnect mechanism to house connector modules, patchcords, cable assemblies, and PCB adapters for connection to test instrumentation. Mates to ITA frame.

Vertical Hinged Mounting Frame: Flexible, economical mounting panel that hinges down for easy access to test instrumentation. Mounts to 19" rack or, in some cases, directly to instrument chassis.

Cable Assemblies and Receiver Patchcords: VPC modules connect to an instrument-specific connector(s) and are also available in PCB adapter configurations that accept COTS (commercial off-the-shelf) cable assemblies. Receiver patchcords allow your solution to be discrete wired.

Receiver Modules: Present multiple configurations of signal, power, RF/coaxial, pneumatic, vacuum, thermocouple, or fiber optic in varying densities to meet any I/O requirement.

Interchangable Test Adapter (ITA): Mates to the Receiver and houses the modules, PCB adapters, cable assemblies, and patchcords for connection to the UUT.

ITA Patchcords: Supply the user a contact with pre-terminated wire in a single or double-ended format to connect the ITA to the UUT in a customized arrangement.

ITA Modules: Connect to the Receiver modules in the corresponding configurations and is the final connection before engaging the test instrument to the UUT.

ITA Enclosures: Protect and provide strain relief for wiring. Enclosures offer a mounting surface for UUT accessories such as edge-card adapters and other connectors.

New Products from VPC!

Micro Power and Coaxial Contacts and Modules

The Micro Series Power and Coaxial contacts provide higher density per module position, saving valuable space and increasing the ability to expand in the future without sacrificing performance. VPC offers 50 and 75 Ohm Micro Coaxial contacts, which can perform up to 3 GHz. The Micro Power contacts are rated to 22 Amps continuous when using 12 AWG wire. Guaranteed to 10,000 cycles, the Micro Series offers crimp style contacts which enable quicker assembly. Micro Series modules can accept 50 and 75 Ohm Micro Coaxial contacts with the ability to mix with Micro Power contacts.

iCon960™

Precision Engagement with Standard Modules

The iCon960 is the next step up for higher I/O requirements. With two 480 QuadraPaddle modules included, this iCon provides 960 signal contacts for both PCB and discrete wiring. Other standard module types and configurations are available. The precision engagement mechanism is the same as the standard iCon, it secures the connector while guaranteeing consistent performance up to 5,000 cycles. Its keying and guide pin configurations protect contacts from damage when using multiple connectors.

Platform Convenience with High I/O

The 9025TR is a combination of VPC's G12 and 9025 Mass InterConnect Solutions. The 9025TR has over twice the I/O as the G12 and is outfitted with the same 20 inch platform to support your enclosure while engaging and disengaging. The docking feature of the 9025TR provides an easy way of guiding a fixture into position prior to engagement. Runners along the platform provide a smooth-sliding action, ideal when using fixtures up to 180 pounds. The 9025TR uses all standard modules and contacts, includes a microswitch and is available with optional table legs and keyboard tray kit.

9025TR

Applications

Virginia Panel Corporation continues to develop new products that are meeting the various requirements demanded by the test and measurement industry. VPC is a leader in developing a total InterConnect solution in a modular and scalable format. As the world leader in test and measurement InterConnects, VPC seeks to find solutions that provide the most economical method of organizing your connections. Our systems support over 14,000 InterConnects and are scalable to smaller formats with as few as 10 points. VPC's variety of high performance contacts with a standard modular format allow our InterConnect modules to be applied to a host of various size InterConnect devices. Our engaging systems start as low as 2 modules and go up to 75 modules. Scalability is also provided within various engaging systems. This allows for an easy approach to upgrading your InterConnect system with additional modules to test product upgrades or future products that are under development. Applications range from the medical industry testing heart pacemakers to the Mil/Aero industry analyzing sophisticated missile guidance systems.

VPC welcomes all Application articles and thanks those that have and will allow VPC to highlight today's test technology. Visit vpc.com for a complete listing.

Test Engineer of the Year Uses VPC's G2

John Gmitter, of Harris RF Communications, has been named **Test Engineer of the Year** by *Test and Measurement World* magazine. This award comes as a result of Gmitter's hard work developing a new test system for Harris' military wireless communications. The need for a new, efficient, and high quality method of testing became apparent when Harris began producing, and testing, in higher volumes than ever before.

Tasked with developing this solution, Gmitter began investigating several options for a system that was required to test multiple units in a small space and would not occupy additional factory space. He chose VPC's G2 because of its cabling efficiency and accessibility and the quality of the off-the-shelf product, which enabled him to plug and play without having to create custom assemblies or do a lot of wiring himself. The tester Gmitter developed for Harris contains three PXI chassis with an extensive variety of connectors and test equipment. Each tester holds four VPC G2s, allowing testing of various products at one time.

Test and Measurement World profiled six outstanding engineers and asked the readers to choose the Test Engineer of the Year. John Gmitter was chosen for his leadership and ability to manage a geographically separated team, his ability to complete a monstrous task in limited time, and his ability to reduce costs and solve problems.
www.rfcomm.harris.com

For the full-text of the article, "Test for the Digital Battlefield," from *Test and Measurement World*:
http://www.tmworld.com/contents/pdf/6418015.pdf.

Applications

Barco • S6 Solution

Many PCBs, used in a large number of Barco visualization products, are tested on test systems developed by Barco's own test engineering groups. The PCBs used for these display systems will, from now on, be tested on a brand new tester developed by Barco's own test engineering group.

VPC's S6 Skeeter met the high demands of the Barco test engineering group perfectly. With six configurable connector module positions in a horizontal configuration, the S6 provides flexible, high performance and a reliable interface, while using just 1U of rack space. This application called for a mixture of signal, power and coaxial connections; all are provided comfortably through the S6, with spare connector positions available for future upgrade.

www.barco.com

IE • 25 Module VXI Solution

Instrumentation Engineering's Mixed Signal/RF Test Platform is designed to be reliable, flexible, scalable and reconfigurable. The use of COTS (commercial-off-the-shelf) equipment allows you to select from the industry's best instrumentation to meet your test needs. Reconfigurable design ensures that what you've selected today will meet tomorrow's ever-changing test challenges. For reliable connections to their UUT's, IE uses an industry accepted VPC 9025 VXI interface. The 9025 is highly configurable and allows for a range of test adapters. IE's approach to test development guarantees minimum component costs, minimum NRE, maximum maturity and reliability, and worldwide support.

www.ietest.com

Applications

Robins Air Force Base • iCon and 50 Module Solution

Test engineers at Robins Air Force Base used VPC's 9050 VXI, iCon and L-shaped enclosure in their Versatile Depot Automatic Test Station—Digital Analog version 2 (VDATS DA-2), which is used to automatically test avionics circuit cards for the F15 fighter APG-63 system. The 9050 VXI receiver and ITA form the backbone of the tester. With a common I/O pin map, any number of groups can develop ITAs and Test Program Sets to utilize the VDATs tester, simplifying testing and procurement. VPC's L-shaped enclosure design is ideal for testing circuit cards because it allows the card to be mounted on a horizontal surface to prevent damage.

Ease and speed of installation and removal was a high priority, as technicians need to engage and disengage the connecting assembly frequently. The test engineers chose iCon due to its extreme versatility; the connector offers a wide range of pin configuration and termination types.

www.robins.af.mil

G Systems • 50 Module Solution

G Systems has developed a common core automated test system, subcontracted from Lockheed Martin's Missiles and Fire Control program. The system tests and validates missile launchers for the US Army's Future Combat Systems. The test platform is PXI-based, incorporating a VPC receiver with interchangeable test adapters (ITA) and custom cable assemblies. The hardware includes two PXI chassis and instrument modules that connect through a double height VPC 90 Series Receiver. The VPC adapter allows electrical and mechanical connections to multiple UUTs through unique ITAs. VPC's 9050 aligns with the dual PXI chassis, hinging down for easy access. Strain relief is made at both the receiver and PXI board connections. This configuration has over 2,500 connection points, with room for expansion.

www.gsystems.com

Applications

PWG Systems • G12 Solution

PWG Systems team developed the Castle I Automated Test Station for the Electronic Component Test Branch of the Redstone Technical Test Center (RTTC) to serve as a Multi-Purpose Functional Test Station for DoD Electronic Assemblies and Sub-Systems utilized in missile and defense applications.

PWG Systems team utilized a MS Windows XP based, Pentium 4 PC using National Instruments' TestStand and LabVIEW for test control and the VPC G12 Receiver for its interconnection of its more than 1,500 interface points. The VPC G12 created a simple and compact interface for the end users that would be difficult to achieve using most other available products. The Castle I Automated Test Station utilizes both high-speed instrumentation and programmable laboratory standards for its testing based on the GPIB, PCI, SCXI, Ethernet, RS-232 and PXI technologies.

www.pwghsv.com

ARC Technology Solutions • G12 Solution

ARC's Mixed Signal Automated Test (MSAT) system highlights the latest in cost effective, high performance automated test equipment, yielding reduced test development time and lower cost of ownership. The MSAT is a highly integrated test system incorporating ARC's CID and VIPERION test products, along with a combination of VPC, National Instruments PXI, and other off the shelf test and measurement equipment. ARC has chosen the Virginia Panel G12 Receiver for its MSAT system due to its ability to interconnect to a variety of devices while offering a sturdy, reliable interface. Additionally ARC's VIPERION High Speed Digital Testers connect directly to the G12's QuadraPaddle connectors allowing for optimal testing conditions directly at the unit under test's connection to the MSAT. The VPC G12 incorporated into ARC's MSAT is currently fielded at several Government and Commercial locations supporting critical items for the aviation and defense sector.

www.arcserv.com

How to Configure a System

The following steps help you to determine which VPC products are necessary to complete your system based on your I/O requirements. The steps and using the Configuration Worksheet will enable you to properly choose the right equipment to best suit your needs.

Step 1. Determine the System's I/O Requirements.

A. Number of signal points
B. Number of power points
C. Number of coaxial points
D. Number of other contacts
E. Cable assembly modules
F. Wired Adapters

Choosing the signal, power and coaxial points will allow you to determine the modules needed. If you are using cable assemblies then the required modules are already determined.

Step 2. Determine the Receiver.

A. You determine the size of the receiver by how many modules you will need plus room for expansion. VPC recommends 20% of the module positions remain open for future growth.

Step 3. Determine the Receiver Accessories.

A. Receiver Mounting Panel
B. Vertical Hinge Mounting Frame (VHMF)
C. Plug and Play Mounting Plate
D. Receiver Protective Cover
E. Slide Kits
F. Chassis Mount Kits

Step 4. Determine the ITA.

A. You determine the ITA (Interchangeable Test Adapter) based on the size of the receiver you have chosen.

Step 5. Determine the ITA Modules and Contacts.

A. The modules for the ITA are the mating modules for the receiver modules you selected in Step 1.
B. The ITA contacts mate to the Receiver contacts and are dictated by your system's I/O requirements.

Step 6. Determine the ITA Accessories.

A. ITA Protective Cover
B. ITA Patchcords
C. ITA Enclosure

Configuration Worksheet

The following worksheet is a sample of how to map out the configuration of a 10 Module system. The configuration worksheet is also available on the web at **vpc.com/worksheets/config.htm**.

Test and Measurement Chassis/Mainframe

Manufacturer	National Instruments™
Part Number	778645-01
Model #	PXI-1045
Description	18-Slot 3U Chassis

Instrument Information

Slot	1	2	3	4	5	6	7	8	9	10
Instrument Manufacturer	NI	NI	Chroma	Geotest	North Atlantic	Pickering	Ascor			
Description	PXI-2503	PXI-2532	PXI 52911	SMX2040	cPCI 75DS1	40-610-022	7011			

Receiver/ITA Assembly

Assembly Name	Receiver	Receiver Mounting Accessory	ITA	ITA Enclosure
Manufacturer	Virginia Panel	Virginia Panel	Virginia Panel	Virginia Panel
Part Number	310104317	310113342	410104123	410112291
Description	10 Module Receiver	5U, VHMF	10 Module ITA	10 Module Enclosure

Receiver Connector Modules, Cable Assemblies, or PCB Adapters

Slot	1	2	3	4	5	6	7	8	9	10
RCV Module/ Cable Part #'s	541122125	510150142	540020010101	540039010111	540016010101	540005010105	540020010101	*	*	*

ITA Connector Modules and Patchcords

Slot	1	2	3	4	5	6	7	8	9	10
ITA Module	510108126	510151105	510108101	510108210	510108101	510108131	510108101			
ITA Patchcord (Quantity)	7-103924000-036 (69)	7-121924000-036 (168)	7-103924000-036 (15)	7-103924000-036 (9)	7-103924000-036 (37)	7-103924000-036 (69)	7-103924000-036 (50)			
ITA Patchcord (Quantity)				7-235916000-036 (4)						

Tools (Crimp, Die, and Extraction)

910110102 – TriPaddle Extraction Tool
910112104 – Mini Coax and Mini Power Extraction Tool
910110111 – QuadraPaddle, ITA, Extraction Tool
If you decide to order contacts instead of patchcords, you will need to purchase crimp tools

* VPC recommends at least 20% of module positions remain open for future growth

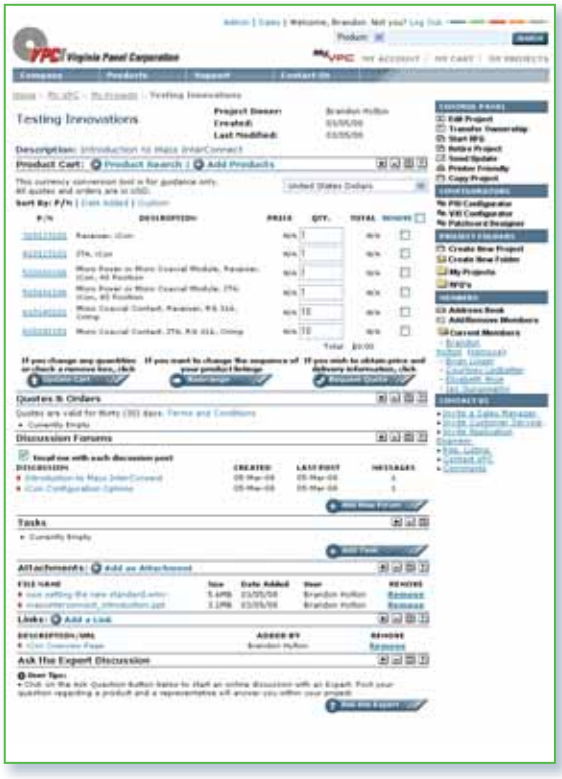
Create a MyVPC.com Project

MyVPC.com
build • manage • collaborate

MyVPC.com enables you to create and maintain quotes and collaborate with others involved in your project, ***all in one place.***

WHEN YOU SET UP A PROJECT ON MYVPC.COM, YOU CAN:

- Create and save a cart
- Request a quote
- Access VPC's PXI and VXI configurators and Patchcord Designer
- Organize and access saved products
- View and add members to your project, including VPC engineering and sales personnel
- Hold a discussion forum with all persons involved in the project
- Create a list of tasks
- Upload attachments
- Ask questions of VPC representatives, which will be answered within your project.

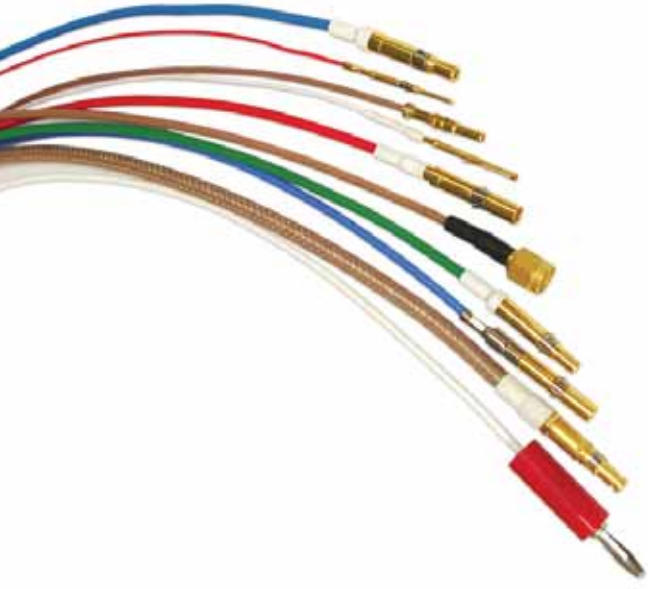


By joining, you gain access to all the great tools available at MyVPC.com, including the ability to search for products and load your selections to a product cart or project. Also, MyVPC.com allows you to collaborate securely with your peers, get answers to product questions, and receive price quotes on the products you need. **Joining takes only two simple steps.**

Wire+ Advantage Program

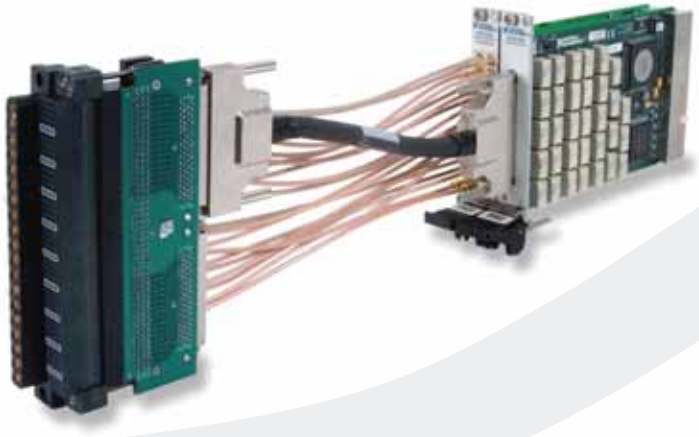
What is the Wire+ Advantage?

VPC's **Wire+** Advantage provides engineered, finished, and quality tested cable assemblies to enable easier system configuration, promoting integration of your Mass InterConnect system with virtually any type of test and measurement instrumentation. Whether you need discrete-wired cable assemblies, innovative PCB adapter cards, wired adapters, or our wired enclosures, VPC has a solution for your InterConnect needs. **Wire+** offers convenient "plug and play" capability for rapid configuration of your system.



Accelerated Wire Termination with Patchcords

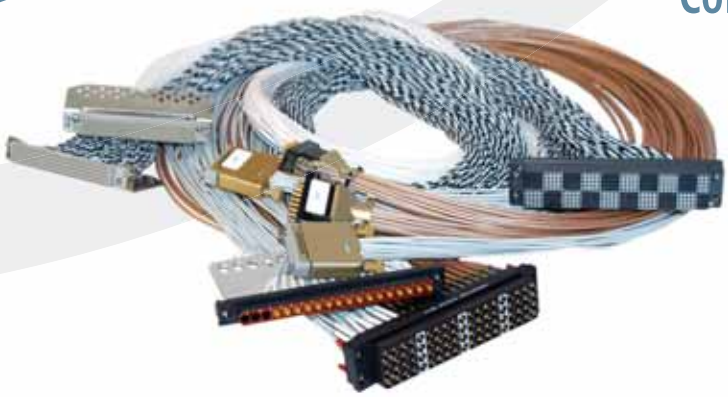
Whether you need standard or customized patchcords, VPC will make them for you. VPC can manufacture single- or double-ended patchcords configured to your specifications. With over 100 contacts and wires to choose from, including USB, RJ45, and other standard connectors, you can be sure to get exactly the patchcord you need. To access the Patchcord Configurator, please visit ***vpc.com/patchcorddesigner.***



PCB Adapters

VPC offers a wide range of PCB Adapter modules that enable rapid connectivity between instrumentation and the Mass InterConnect receiver module with a commercial-off-the-shelf cable assembly.

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner



Connection Options with Cable Assemblies

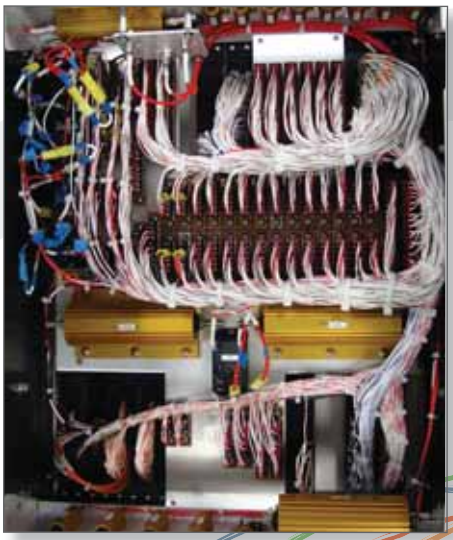
Discrete-wired cable assemblies incorporate a VPC module and a mating connector. Available in several standard lengths and configurations, these assemblies save integration time by allowing you to connect directly to the test instrument.

VPC's discrete-wired cable assemblies come with documentation, including a mechanical drawing and wire list, to verify signal paths for ease of integration.

PXI, VXI, & LXI Solutions

VPC provides pre-wired cable assemblies to connect directly to your instrumentation, enabling quick integration of PXI, VXI, and LXI Systems. The online configurators support over 850 PXI and VXI cards. To access our configurators, please visit ***vpc.com/wire.***

VPC's VXI system solutions provide InterConnect adapters to funnel your wiring system. High performance cable assemblies and patchcords ensure quality connections and fast assembly of your Mass InterConnect Solution.



Complete Wired Systems

VPC's custom wired systems, with assemblies and receivers, provide you with a complete product, ready for integration into your test system. Wired systems are built to your specifications and enable a variety of configurations. Let us help you with your InterConnect Solution.

VPC can build wired fixtures and receivers to house and maintain your wiring system. The system comes to you pre-wired and tested, with documentation, configured to your specifications.

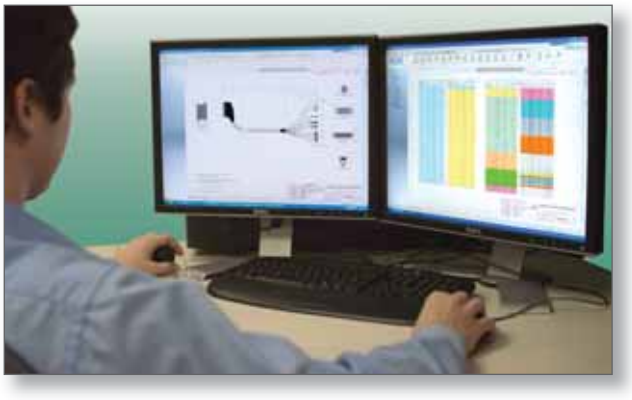
Wire+ Advantage

Commitment to Quality

VPC is committed to uncompromising quality, continuous improvement, and exceptional value. We are an ISO 9001:2000 certified business, which reinforces VPC's dedication to operating a Quality Management System. In addition, all VPC solderers are certified to J-STD-001.

The VPC Quality Assurance Lab conducts tests for point to point continuity, shorts, and insulation resistance, to ensure you receive a product that meets both your and VPC's high quality standards. The QA Lab's automated equipment includes both DIT-MCO and Cirris cable testers. In addition, VPC's network analyzer tests the electrical response of RF cables to a specified frequency range.

International Organization for Standardization



Design to Your Specifications

VPC's Application Engineers can answer questions regarding products and explain applications. If your test system requires custom assemblies, they will work with you to develop new cable assemblies and mechanical design variations, such as custom fixtures and enclosures, that meet your specific requirements. With your order, you will receive product drawings, wire lists, and continued engineering support from VPC.

State of the Art Wire Technology

VPC's state of the art wire strippers, crimpers, and cutters speed production. Our combination stripper and crimper enables consistency and reduces rework time. Automated quality machinery reduces test and validation time while ensuring that you receive a quality product.

Patchcord and Cable Assembly Configuration Tools

VPC maintains an online database of test instrument-specific cable assemblies searchable by manufacturer. With over 850 instruments listed, VPC enables you to easily choose the right cable assembly for your test system instrumentation. To access our configurators, please visit **vpc.com/wire.**

Patchcord Designer

VPC's Patchcord Designer enables you to quickly and easily create and view the patchcords you need. The Designer immediately generates the part number and a detailed drawing for your patchcord. With over 100 contacts and over 70 types of wire, the Patchcord Designer offers many possible contact-to-wire combinations.

1. Select first contact by description or VPC part number. Alternatively, first select the type of wire.

2. Select wire and second contact (if any). Alternatively, select the first and second contacts.

3. Select wire length and click "Save." The part number and drawing are generated automatically.

PXI And VXI Configurators

VPC offers online configurators for both PXI and VXI cards. Our Receiver Cable Assemblies make a quick connection from the PXI card to the receiver saving you valuable time and labor. We have made it easy to find the right part numbers you will need to make your connections.

1. Select the instrument manufacturer from the first drop-down menu.

2. Select the instrument model number from the second drop-down menu.

3. Select the cable assembly length from the third drop-down menu and click "Add." The cable assembly part number and mating components will be listed at the bottom of the page.

Discover Versatility & High Performance using iCon960.

iCon960 Delivers Superior Features

- Removable U-shaped cable clamp makes it easy to reconfigure wired modules
- Fail-safe features include offset guide pins, recessed ITA contacts and keying pins
- Removable cover allows access to probe points while engaged
- Rugged engagement mechanism designed for 5,000 cycles

iCon960™

Ideal for Secondary InterConnect

- Consolidates your connectors with a wide range of I/O
- Enables rapid changeover with quick and easy connections

960 Signal Contacts Satisfies High I/O Need

- Provides 960 signal contacts for both PCB and discrete wiring using QuadraPaddle technology
- Two 480 signal modules included—other module types available upon request
- Half-turn quick cam allows easy, precision engagement of receiver and ITA

Versatility Creates Solutions for Many Industries

- Ideal for scientific data acquisition applications
- Simplifies wire connections for the entertainment industry
- Meets specialized testing requirements in the automotive industry
- Proven durability in environmental chambers

iCon™

The first generation of iCon *is available with smaller format modules. Request a copy of an iCon Product Catalog from your sales representative, or visit our website,* ***vpc.com.***

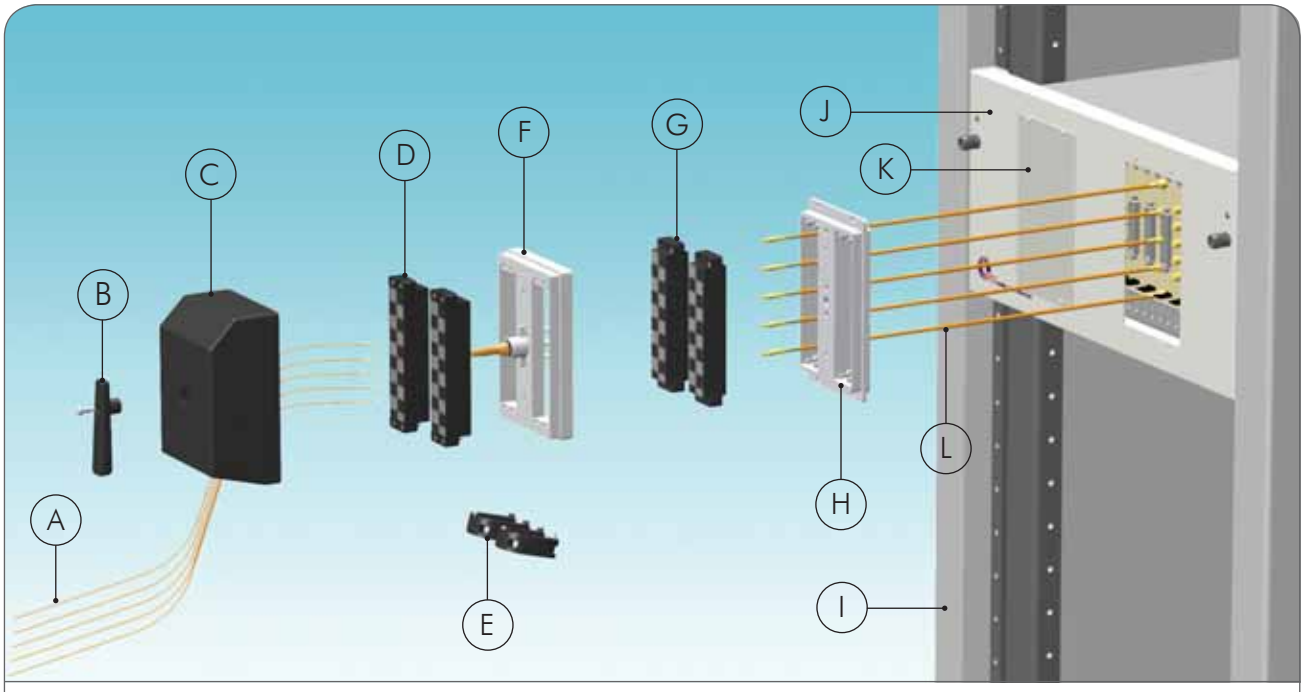
High I/O with QuadraPaddle Technology • iCon960

The iCon960 is the next step up for higher I/O requirements. With two 480 QuadraPaddle modules included, this iCon provides 960 signal contacts for both PCB and discrete wiring. The precision engagement mechanism is the same as the standard iCon, providing reliable connections test after test.

Two 480 Signal QuadraPaddle Modules Included

iCon960™

For more information, visit vpc.com/iCon960



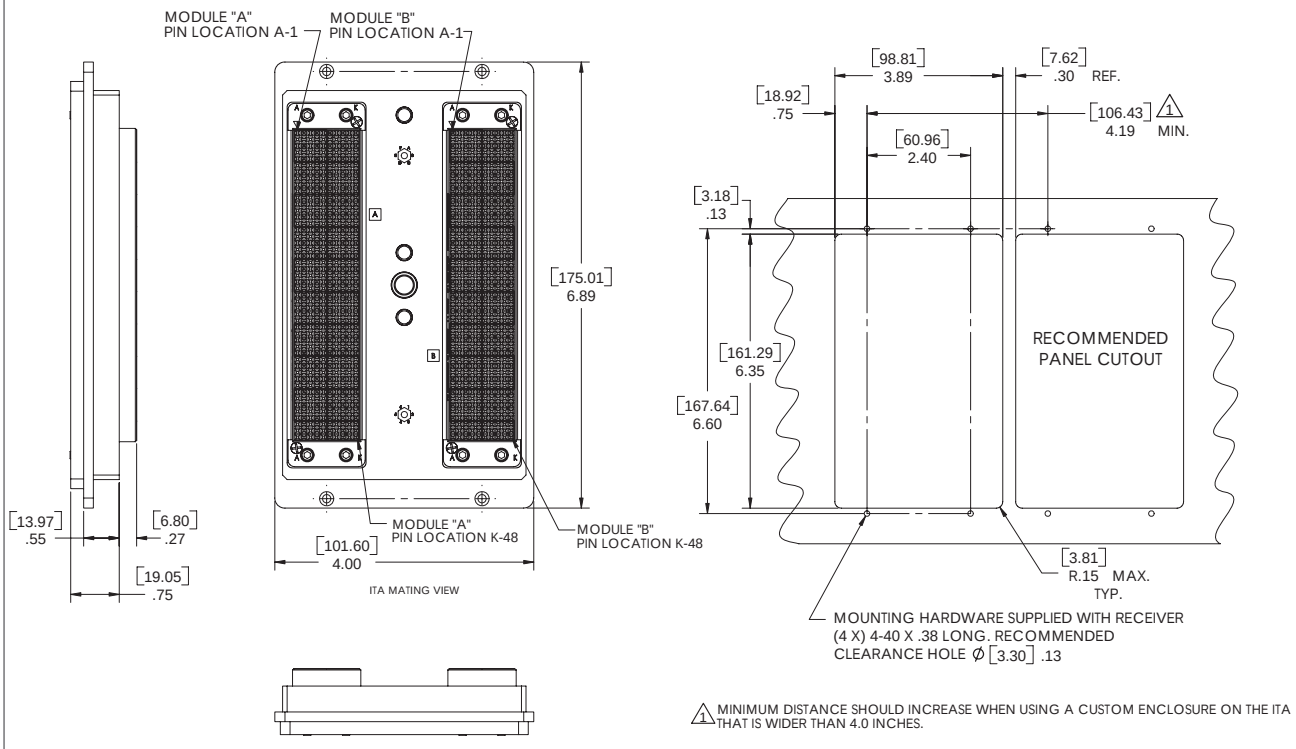
A. ITA Patchcords
B. Engagement Handle
C. iCon960 Enclosure
D. ITA Modules
E. U-shaped Clamp
F. iCon960 ITA Frame
G. Receiver Modules
H. iCon960 Receiver
I. Rack With Instruments
J. Vertical Hinged Mounting Frame
K. iCon960 Cover Plate
L. Receiver Patchcords

Part #	Description
RECEIVER	
310 124 102*	Receiver, iCon960, 2 QuadraPaddle Modules, Fully Loaded with Round Posts (510 150 135)
310 124 103*	Receiver, iCon960, 2 QuadraPaddle Receiver Wire Crimp Modules (510 150 116)
310 124 105*	Receiver, iCon960, 2 192 Position QuadraPaddle Modules (510 150 115) and 2 96 Position TriPaddle Modules (510 104 136)
ITA	
410 124 103*	ITA, iCon960, 2 QuadraPaddle Modules (510 151 108), Fully Loaded with Round Posts for PCB Mounting
410 124 104*	ITA, iCon960 *includes* Includes two 480 Position QuadraPaddle ITA Modules, Part # 510 151 106
410 124 105*	ITA, iCon960, 2 192 Position QuadraPaddle Modules (510 151 105) and 2 96 Position TriPaddle Modules (510 108 126)
ACCESSORIES	
310 113 465	Vertical Hinged Mounting Frame, iCon960, 5U, 2 Positions
310 113 466	Cover Plate, iCon960
310 113 489	Protective Cover, iCon960, Receiver
410 112 775	Enclosure, iCon960, with 2 Cable Clamps
410 112 804	Protective Cover, iCon960, ITA

**Other module types are available for the iCon960. Please contact VPC for more information.*

For more information, visit vpc.com/iCon960

iCon960 Receiver



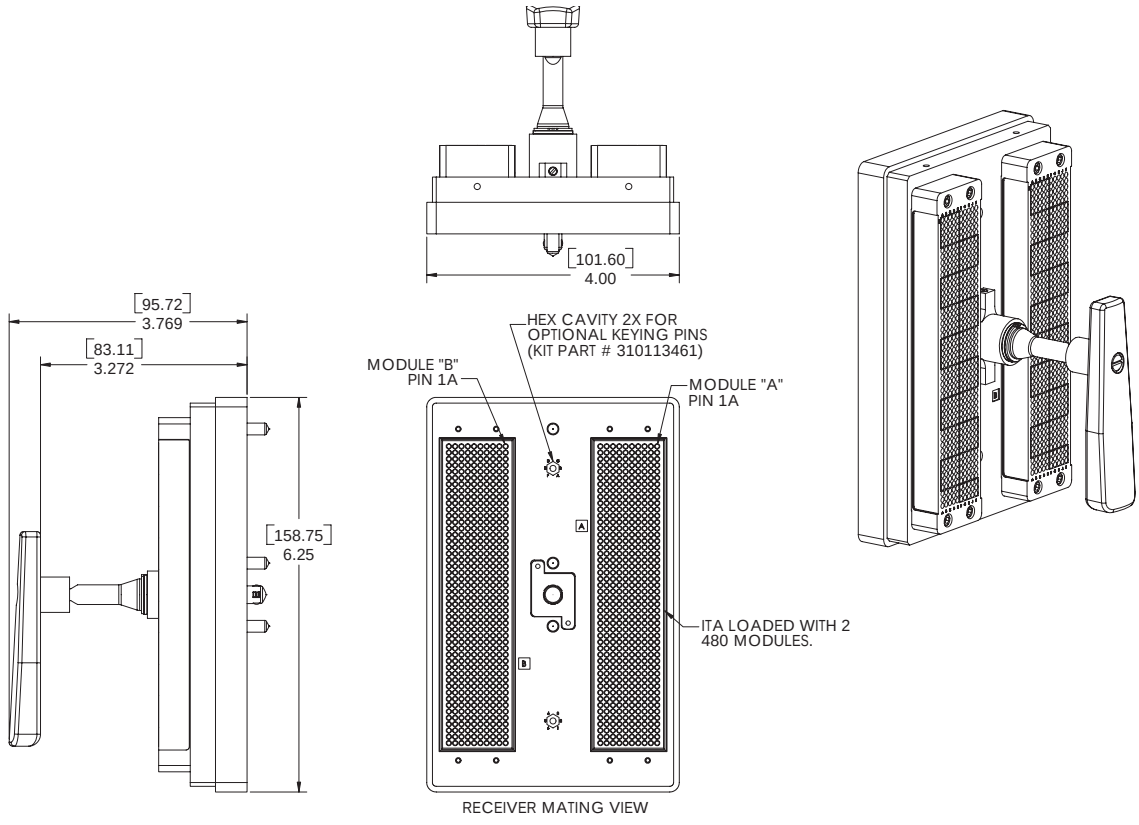
➤ Receiver, iCon960 • **Part # 310 124 103**

Receiver Specifications

Weight	1.3 lbs. [.58 Kg]
Frame Material	Nickel Plated Aluminum Alloy
Hardware Material	Stainless Steel Alloy
Modules Included	510 150 116 (2)
Cycle Life	5,000
Temperature	–55° C to 100° C

iCon960 includes two 480 position modules to allow a maximum I/O of 960. Receiver is PCB capable.

iCon960 ITA



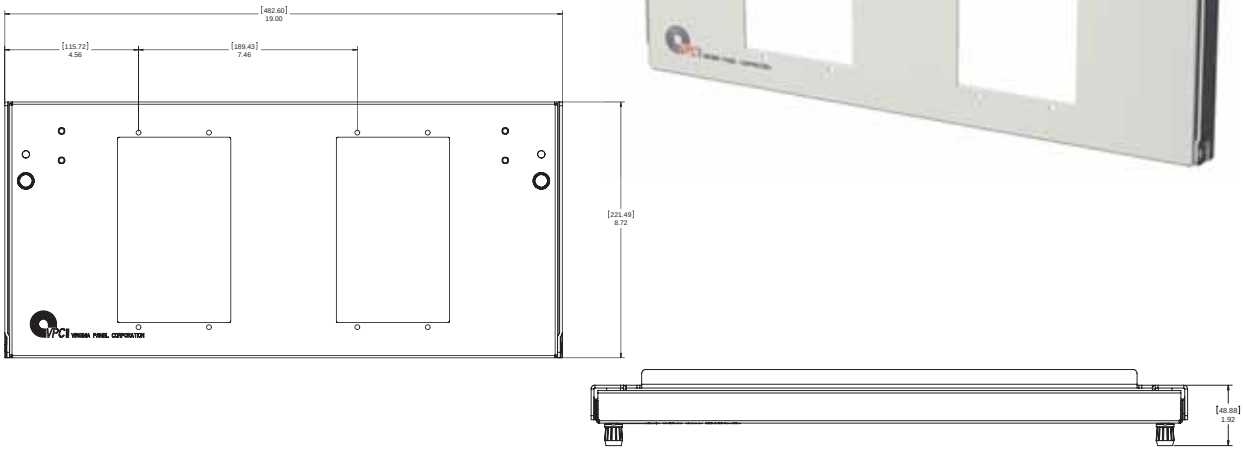
➤ ITA, iCon960 • **Part # 410 124 104**

ITA Specifications

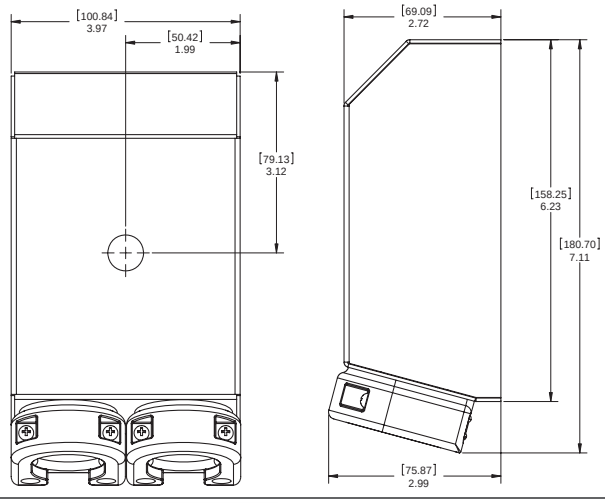
Weight	1.3 lbs. [.58 Kg]
Frame Material	Nickel Plated Aluminum Alloy
Hardware	Stainless Steel Alloy
Drive Unit	Beryllium Copper and Stainless Steel
Modules Included	510 151 106 (2)
Cycle Life	5,000
Temperature	–55° C to 100° C

The iCon960 ITA uses the same half-turn quick cam engagement mechanism as the standard iCon Rack & Panel connectors.

The 5U Vertical Hinged Mounting Frame mounts to standard 19" racks and hinges open to allow access to wiring between the instruments and VPC Receiver. The 2 cutouts are spaced evenly across the panel. iCon960 cover plate sold separately 310113466.



➤ Vertical Hinged Mounting Frame, iCon960, 5U, 2 Positions • **Part # 310 113 465**



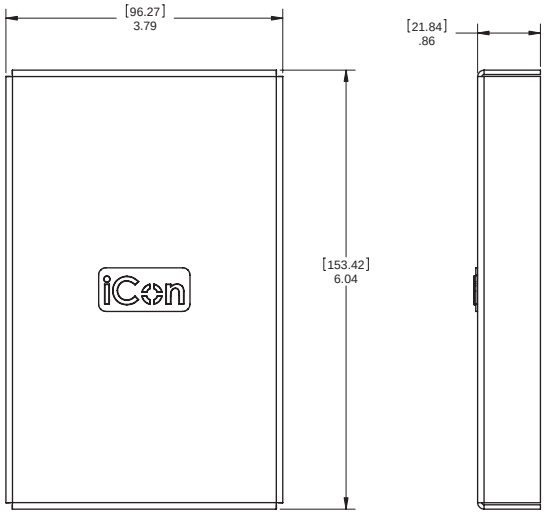
TECH TIP

Please see our Tech Tip #1 for more information.

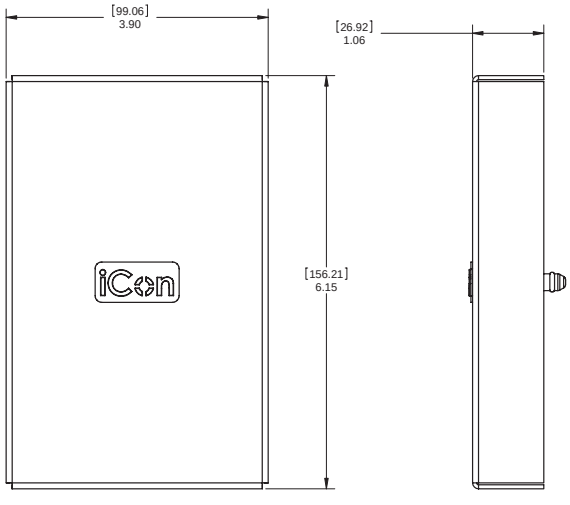
The standard iCon960 enclosure has two U-shaped cable clamps that allow a maximum cable bundle of 1.55" diameter per clamp.

➤ Enclosure, iCon960 with 2 Cable Clamps • **Part # 410 112 775**

The ITA protective cover is designed to protect your modules when the ITA is not engaged.



➤ Protective Cover, iCon960, ITA • **Part # 410 112 804**



The receiver protective cover is designed to protect your modules and contacts while the test system is not in use.

➤ Protective Cover, iCon960, Receiver • **Part # 310 113 489**

Go Horizontal
with S6, G12 and 9025TR.

Low Profile 1U Height

- The S6's Low Profile allows over 1,400 points while only taking up 1U of rack space
- Horizontal layout maximizes the module positions and minimizes the required rack space

Tabletop Configuration

- The tabletop configuration allows the S6 and G12 to be mounted to any horizontal surface
- Rear covers are available to protect wiring from the receiver to the test equipment

Positive-lock Latching Mechanisms

- Locking latches enable secure engagement
- Guide pins guarantee consistent lead-in with every connection
- Each lever provides 2 points of contact for even engagement distribution

Slide Configuration

G12

- The Slide Kits for the S6 and G12 allow access to test instrumentation and wiring
- Multiple accessories are available for this configuration such as the Cable Tray, the Keyboard Tray Kit, and Adjustable Leg Kit
- Slides can support fixture weights up to 180 lbs [81.65 Kg] and up to 350 lbs [158.76 Kg] with legs

Easy Glide Docking

- Provides an easy way of guiding a fixture into position prior to engagement
- Runners along the platform provide smooth-sliding action
- Ideal feature when using large scale fixtures

9025TR

9025TR Combines High I/O Needs with Horizontal Features

- Accomodates over 5,900 signal contacts
- Front mount ITA allows insertion of screws from the front, saves time and protects wiring

6 Module Solution • S6 Skeeter®

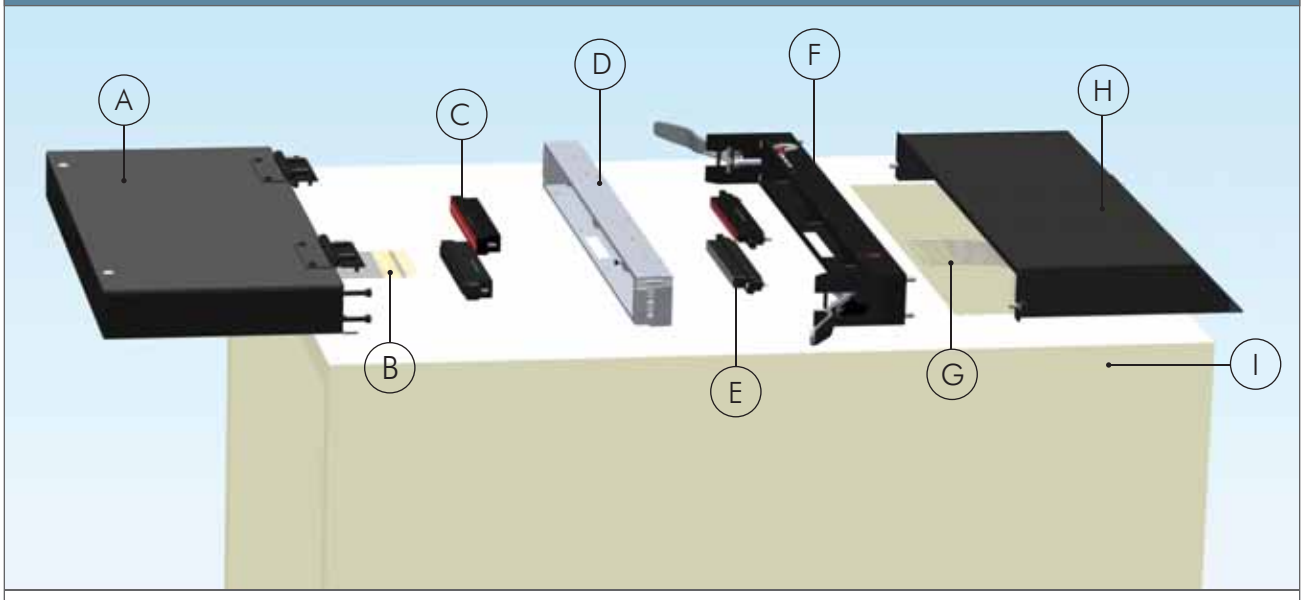
The S6 provides robust, reliable and repeatable testing capabilities for small and intermediate size test applications. With easy glide docking created by the smooth motion of the engagement handles, it is fixture ready with over 1,400 contact points within a 1U height. Skeeter has many configuration possibilities with a wide range of I/O options. The S6 low profile solution is also designed to accept a variety of PCB solutions.

S6 Receiver and ITA

Features and Benefits

- Precision engagement mechanism engineered to mate up to 1,400 in a 1U height
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Modular and reconfigurable for evolving test requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions
- Versatile platform for fixture support
- Slide mounted S6 and associated accessories offer easy access to cables and test instrumentation

S6 Skeeter® Tabletop Configuration without Platform



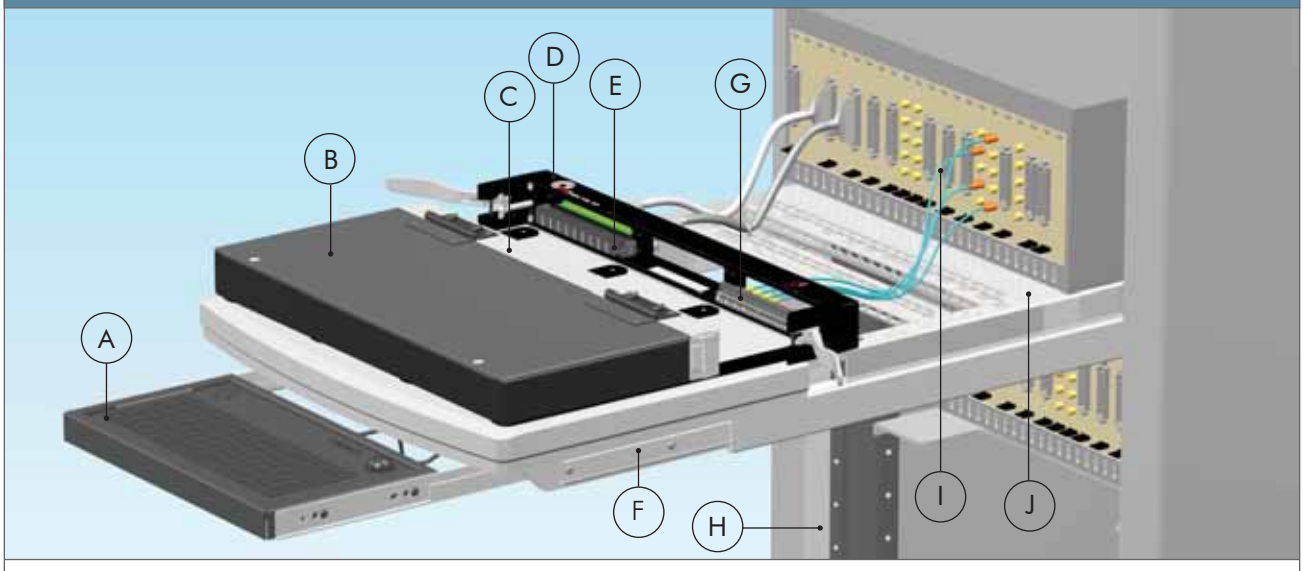
A. ITA Enclosure
B. ITA Patchcords
C. ITA Module
D. S6 ITA
E. Receiver Module
F. S6 Receiver
G. Receiver Patchcords
H. S6 Rear Cover
I. Table

The standard S6 Receiver is a stand alone tabletop unit that can be mounted directly to any horizontal surface utilizing the holes on the underside of the Receiver. Alternatively, the S6 (Part # 310 122 101) comes with a 15" platform that has four rubber feet so the system can safely sit on top of any surface. The feet are removable to enable a permanent tabletop mount configuration. Both S6 Skeeter Receivers offer a versatile, economical platform for a variety of test applications.

Part #	Description
RECEIVERS	
310 122 100	Receiver, S6, 6 Module
310 122 101	Receiver, S6, 6 Module with 15" Platform
310 122 108	Receiver, S6, 6 Module with 20" Platform
ITA	
410 122 100	ITA, S6, 6 Module
ENCLOSURES	
410 112 701	Enclosure, S6, 1.75" x 18" x 8"
410 112 703	Enclosure, S6, 4" x 18" x 12"
410 112 702	Enclosure, S6, 1.75" x 18" x 8" for Discrete Wiring
410 112 712	Enclosure, S6, 4" x 18" x 12" for Discrete Wiring
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
ACCESSORIES	
310 113 432	Protective Cover, Receiver, S6
410 112 700	Protective Cover, ITA, S6
310 113 431	Rear Cover, S6, Tabletop Configuration, for Part # 310 122 100
310 113 444	Rear Cover, S6, Tabletop Configuration, for Part # 310 122 101/108
310 113 435	15" Platform Kit

** For Cable Assemblies, Mating Modules, Patchcords – Visit VPC's Configurators at vpc.com/wire*

S6 Skeeter® Slide Configuration with Accessories



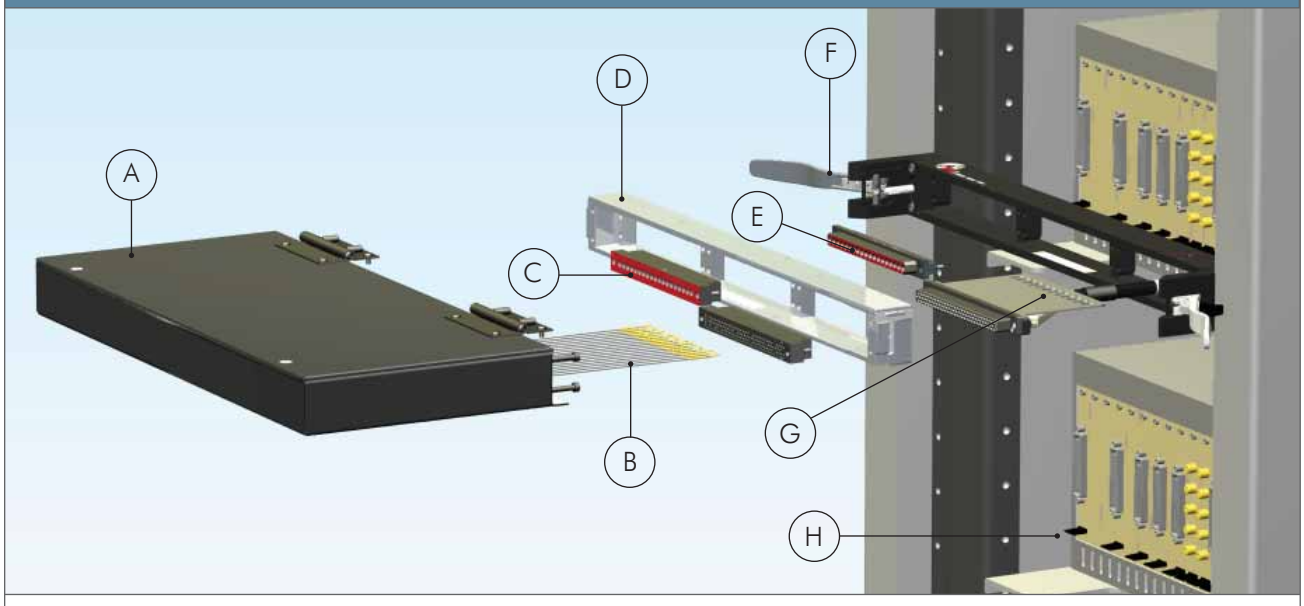
A. Keyboard Tray Kit
B. ITA Enclosure
C. S6 ITA
D. S6 Receiver
E. PCB Adapter
F. Slide Kit
G. Receiver Module
H. Rack with Instruments
I. Receiver Patchcords
J. Instrument Bracket Kit with Strain Relief

For maximum versatility and easy access to instrument-side wiring and cable assemblies, VPC offers a selection of slide kits designed to fit most common rack depths. Slides are rated to support 180 lbs (81 kg) to accommodate even the largest fixtures. Measure the rack depth between mounting rails and choose the slide kit that fits the rack. A rack extender kit is available for mounting to racks with recessed rails.

Part #	Description
RECEIVER	
310 122 101	Receiver, S6, 6 Module with 15" Platform
310 122 108	Receiver, S6, 6 Module with 20" Platform
ITA	
410 122 100	ITA, S6, 6 Module
ENCLOSURES	
410 112 701	Enclosure, S6, 1.75" x 18" x 8"
410 112 703	Enclosure, S6, 4" x 18" x 12"
410 112 702	Enclosure, S6, 1.75" x 18" x 8" for Discrete Wiring
410 112 712	Enclosure, S6, 4" x 18" x 12" for Discrete Wiring
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
SLIDE KITS	
310 113 409	20" Slide Kit, Fits 18"–21.8" Deep Racks, Supports 180 lbs
310 113 410	24" Slide Kit, Fits 22"–25.8" Deep Racks, Supports 180 lbs
310 113 451	28" Slide Kit, Fits 26"–29.8" Deep Racks, Supports 180 lbs
310 113 411	30" Slide Kit, Fits 28"–31.8" Deep Racks, Supports 180 lbs
ACCESSORIES	
310 113 432	Protective Cover, Receiver, S6
410 112 700	Protective Cover, ITA, S6
310 113 435	15" Platform Kit
310 113 430	Rack Extender Kit, S6, 4" Deep
310 113 424	Cable Tray, Slide Configuration, for Strain Relief and Cable Management
310 113 439	Keyboard Tray Kit, Slide Configuration, Keyboard with Touchpad Mouse Included
310 113 453	Instrument Bracket Kit with Strain Relief, Slide Configuration

** For Cable Assemblies, Mating Modules, Patchcords – Visit VPC's Configurators at vpc.com/wire*

S6 Skeeter® Rack Mount Configuration



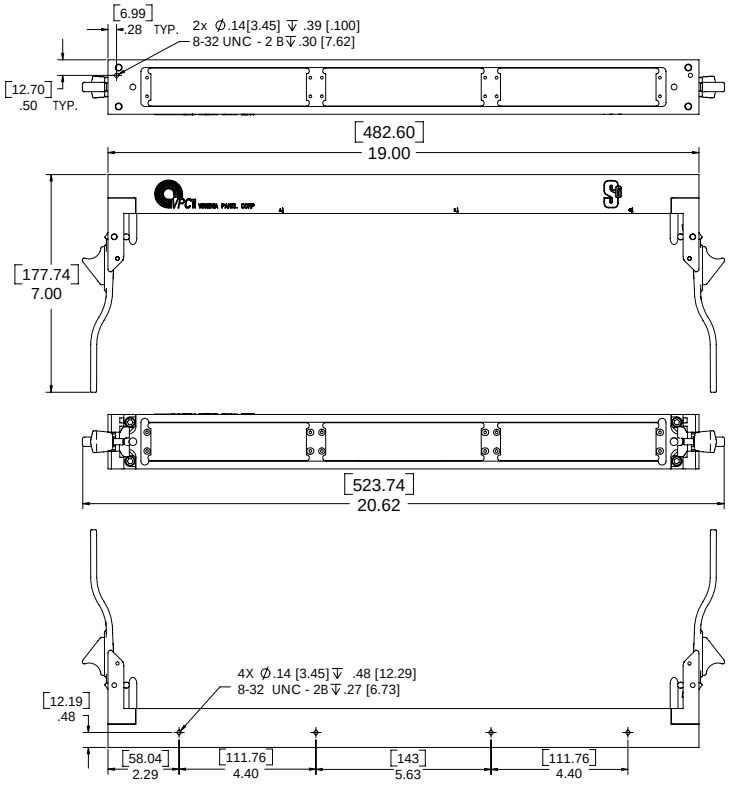
A. ITA Enclosure
B. ITA Patchcords
C. ITA Module
D. S6 ITA
E. Receiver Module
F. S6 Receiver
G. Receiver Cable Assembly with Strain Relief
H. Rack with Instruments

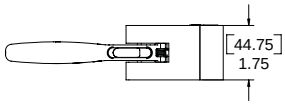
The S6 Receiver is ideal for consolidating multiple test instruments while only occupying 1U of rack space. To mount the S6 Receiver to a 19" rack, the rotation blocks must be removed to access the rack mounting holes. The S6 Receiver will support ITA/fixture weight of 50 lbs at 6".

Part #	Description
RECEIVER	
310 122 100	Receiver, S6, 6 Module
ITA	
410 122 100	ITA, S6, 6 Module
ENCLOSURES	
410 112 701	Enclosure, S6, 1.75" x 18" x 8"
410 112 703	Enclosure, S6, 4" x 18" x 12"
410 112 702	Enclosure, S6, 1.75" x 18" x 8" for Discrete Wiring
410 112 712	Enclosure, S6, 4" x 18" x 12" for Discrete Wiring
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
ACCESSORIES	
310 113 432	Protective Cover, Receiver, S6
410 112 700	Protective Cover, ITA, S6
310 113 430	Rack Extender Kit, S6, 4" Deep

** For installation instructions see the S6 User's Manual at vpc.com*

6 Module Solution • S6 Receiver





TECH TIP

The rotation blocks need to be removed to mount to a 19" rack. Please see Tech Tip #3 for more information.

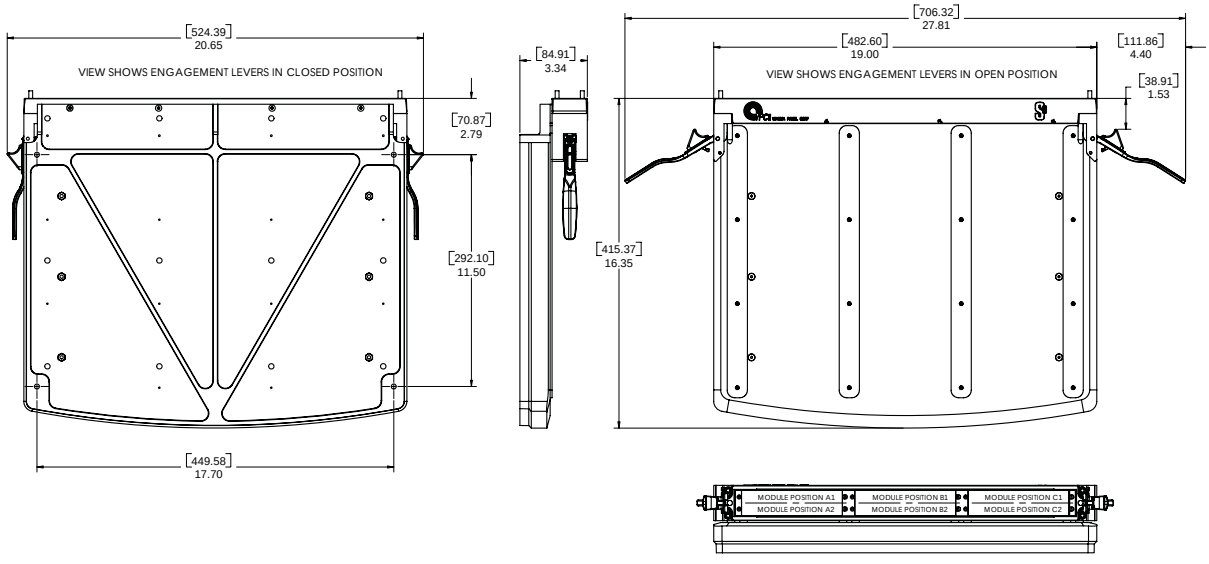
➤ Receiver, S6, 6 Module • **Part # 310 122 100**

Receiver Specifications

Weight	3.80 lbs [1.72 Kg]
Rotation Block Material	Black Anodized Aluminum
Frame Material	Powder Coated Zinc Alloy
Alignment Pins	Stainless Steel
Handles	Nickel Plated Alloy Steel
Available Module Slots	6 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	50 lbs @ 6" [22 Kg @ 15.25 cm]

The S6 Receiver is designed to mount to a rack or directly to a tabletop. The 1U high unit features positive-latching mechanisms and integrated guide pins to create a highly reliable engagement system. The S6 Receiver is very versatile and has module positions screened on the top for ease of module placement.

6 Module Solution • S6 Receiver with 15" Platform



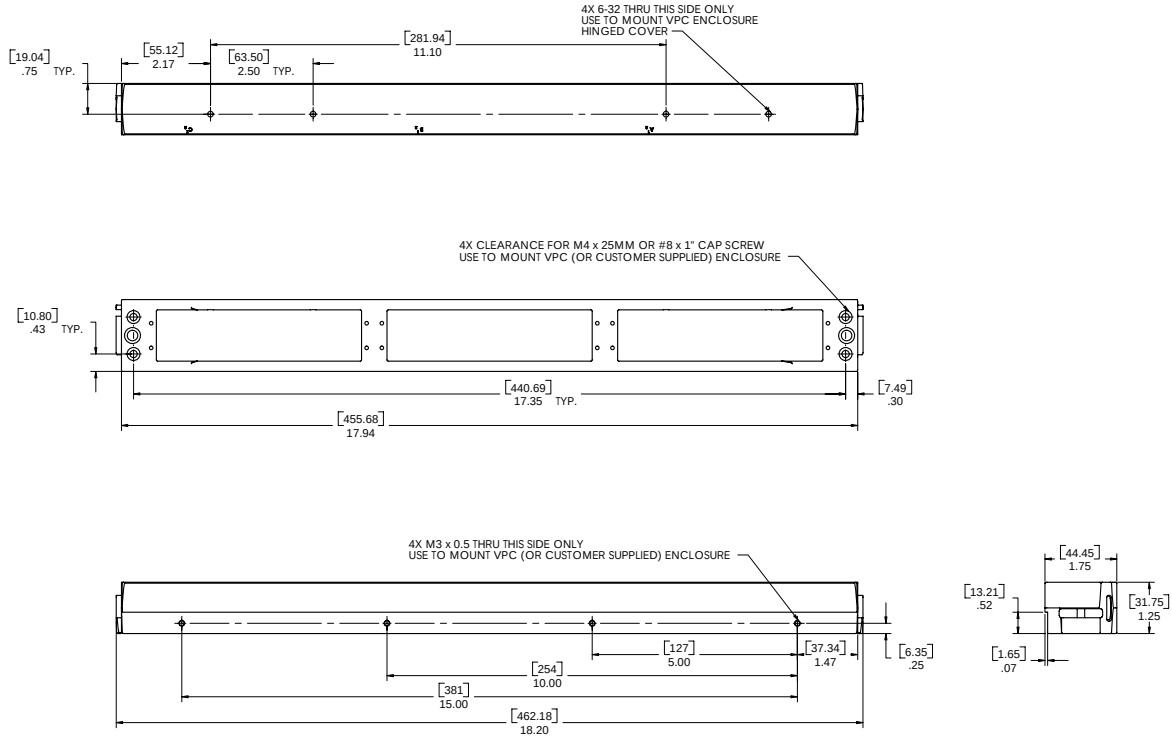
➤ Receiver, S6, 6 Module with 15" Platform • **Part # 310 122 101**

Receiver Specifications

Weight	14.8 lbs [6.71 Kg]
Rotation Block Material	Black Anodized Aluminum
Frame Material	Powder Coated Zinc Alloy
Alignment Pins	Stainless Steel
Handles	Nickel Plated Alloy Steel
Available Module Slots	6 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

The S6 Receiver is designed to mount to slides in a rack application or directly to a tabletop. The 1U height unit features positive-latching mechanisms and integrated guide pins to create a highly reliable engagement system. The S6 Receiver is very versatile and has module positions screened on top for ease of module placement. The S6 is also available in a 20" platform, Part # 310 122 108.

6 Module Solution • S6 ITA



➤ ITA, S6, 6 Module • **Part # 410 122 100**

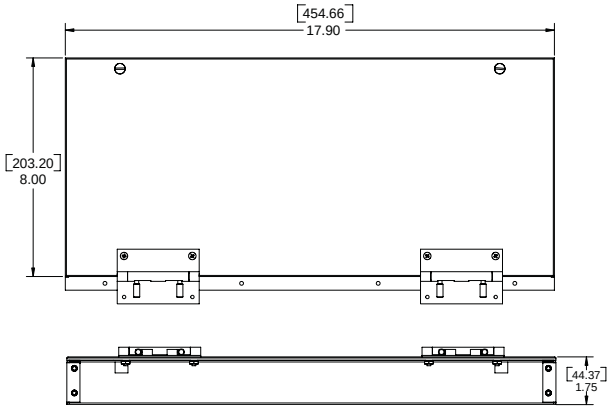
ITA Specifications

Weight	2.6 lbs [1.18 Kg]
Frame Material	Powder Coated Zinc Alloy
Available Module Slots	6 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

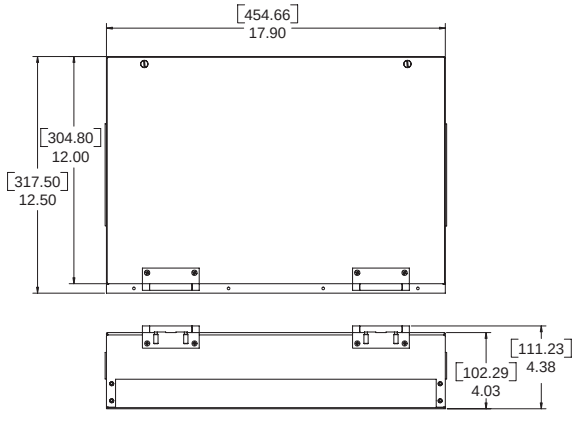
The S6 ITA has a powder coated finish adding an extra layer protection against the elements. It is an integral part of this rugged Mass InterConnect system. The S6 ITA has module positions screened on top for ease of module placement.

S6 • Accessories

The 1U enclosure takes up little rack space and completes the Skeeter® low profile solution.



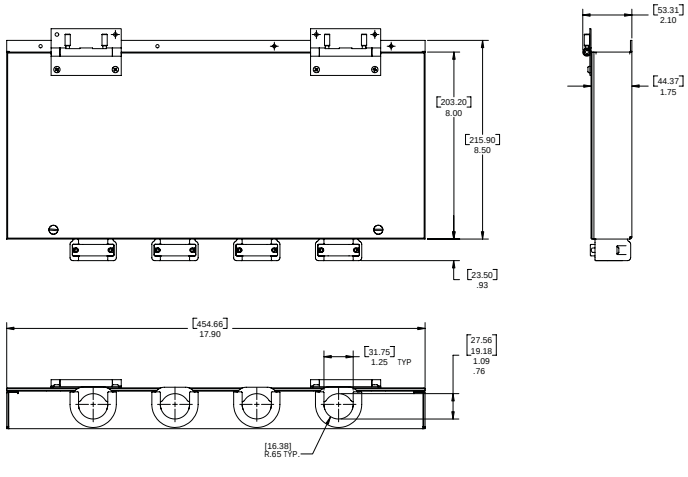
➤ Enclosure, S6, 1.75" x 18" x 8" • **Part # 410 112 701**



The larger enclosure provides more space for wiring and other test system needs.

➤ Enclosure, S6, 4" x 18" x 12" • **Part # 410 112 703**

This enclosure gives you the ability to discrete wire to your UUT with secure strain relief provided by the cable clamps located on the back end. Once the cable clamps are open, you can remove the stiffener bar and install or remove cables without unplugging patchcords from the assembly.



➤ Enclosure, S6, for Discrete Wiring, 1.75" x 18" x 8" • **Part # 410 112 702**

S6 • Accessories

The Receiver Protective Cover is designed to protect your modules and contacts while the test system is not in use.

Protective Cover, Receiver, S6
Part # 310 113 432

The vinyl ITA Protective Cover is durable and shock resistant to protect your contacts and modules in case of harsh impact.

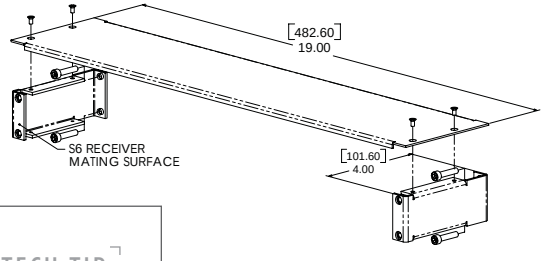
Protective Cover, ITA, S6
Part # 410 112 700

The Rear Covers are designed to enclose the wiring that runs from the S6 Receiver on the tabletop to the instrument cards below. Rear Cover, Part # 310 113 431 is used with the S6 Receiver Part # 310 122 100.

Rear Cover, S6, Tabletop Configuration
Part # 310 113 431

Rear Cover, Part # 310 113 444 is designed for use with the S6 Receiver with Platform, Part # 310 122 101.

Rear Cover, S6, Tabletop Configuration
Part # 310 113 444



TECH TIP

Please see Tech Tip #7 for more information.

The Rack Extender Kit provide additional clearance for the engagement handles when using a rack that has mounting rails recessed more than 1" [25.4mm] in a slide or rack mount configuration. See Tech Tips for more information.

Rack Extender Kit, S6, 4" Deep • **Part # 310 113 430**

12 Module Solution • G12

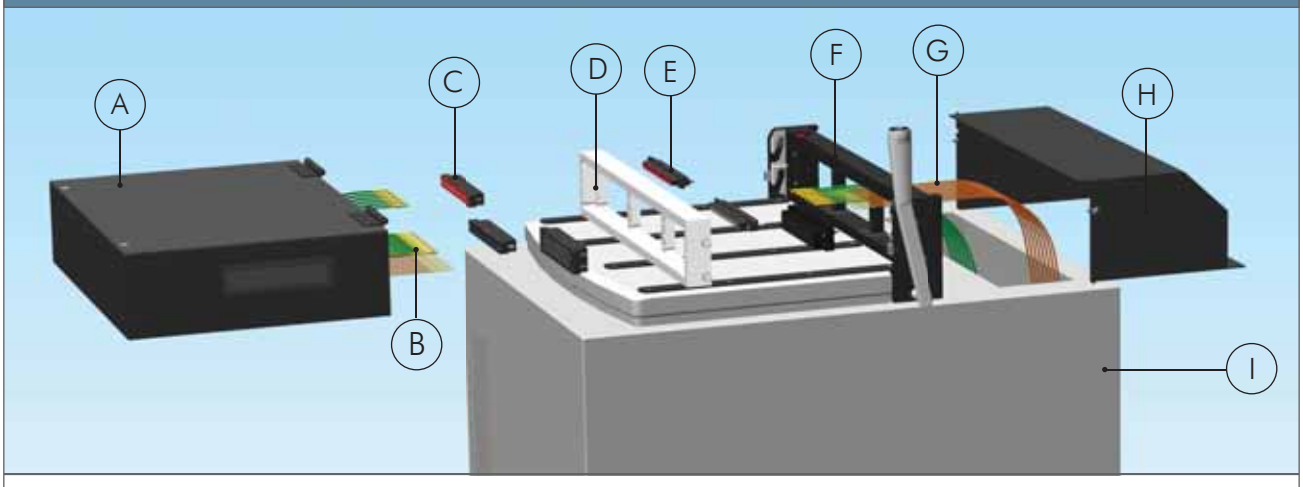
Available in rack mounted and tabletop configurations, the G12 features an aluminum platform to accommodate In-circuit Test and other functional bed-of-nails testing requirements. Integrated guide pins and proven QuadraTrack™ engagement mechanisms provide precise lead-in, while pin and socket modules and contacts ensure reliable connections to over 20,000 mating cycles. With 12 module positions for signal, coaxial/RF, power, vacuum, pneumatic, thermocouple, and fiber optic contacts in multiple configurations, the G12 offers I/O options to meet virtually any connectivity requirement.

Features and Benefits

- Precision engagement mechanism engineered to mate over 2,800 contacts in a 3U height
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Modular and reconfigurable for evolving test requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions
- Versatile platform for fixture support
- Slide mounted G12 and associated accessories offer easy access to cables and test instrumentation

G12 Receiver

G12 Tabletop Configuration



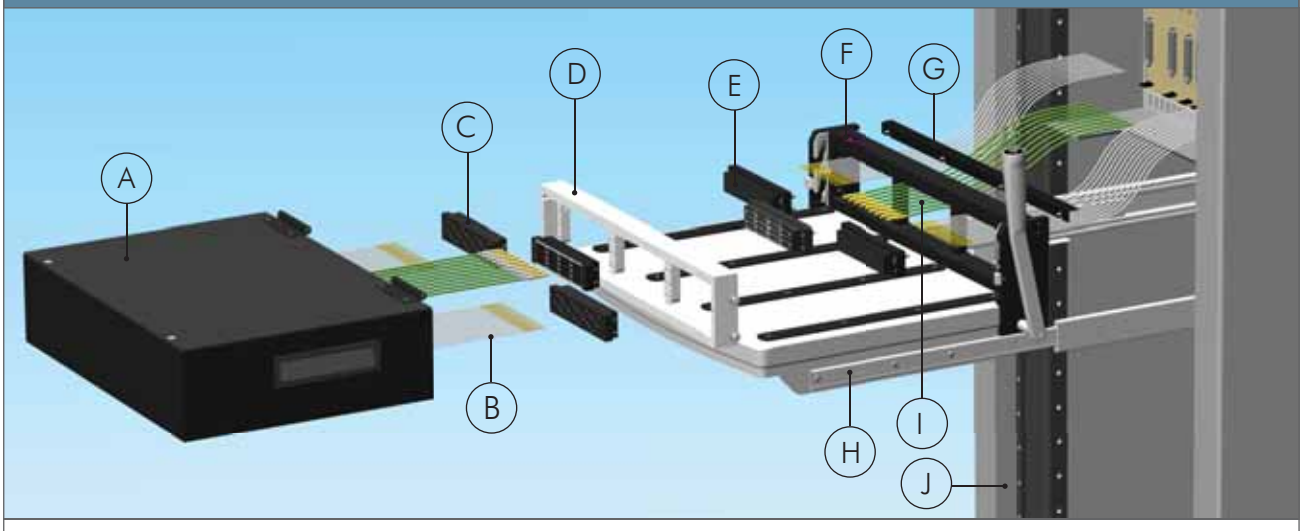
A. ITA Enclosure
B. ITA Patchcords
C. ITA Module
D. G12 ITA
E. Receiver Module
F. G12 Receiver with 15" Platform
G. Receiver Patchcords
H. Rear Cover
I. Table with G12 Receiver mounted

G12 Receivers have four rubber feet below the platform that are removable to expose ¼"–20 threaded holes to enable permanent tabletop mounted configurations. Available with 15" or 20" platforms are available to accommodate a variety of fixture sizes. The G12 offers a versatile, economical platform for a variety of test applications.

Part #	Description
RECEIVERS	
310 104 325	Receiver, G12, 12 Module with 15" Platform
310 104 334	Receiver, G12, 12 Module with 20" Platform
ITA	
410 104 322	ITA, G12, Front Mount, 12 Module with Protective Cover
ENCLOSURE	
410 112 665	Enclosure, G12, Front Mount
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
PROTECTIVE COVERS	
310 113 402	Protective Cover, Receiver, G12
410 112 681	Protective Cover, ITA, G12, (included with Part # 410 104 322)
ACCESSORY	
310 113 421	Rear Cover, G12, Tabletop Configuration

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

G12 Slide Configuration



A. ITA Enclosure
B. ITA Patchcords
C. ITA Module
D. G12 ITA
E. Receiver Module
F. G12 Receiver with 15" Platform
G. Gap Cover
H. Slide Kit
I. Receiver Patchcords
J. Rack with Instruments

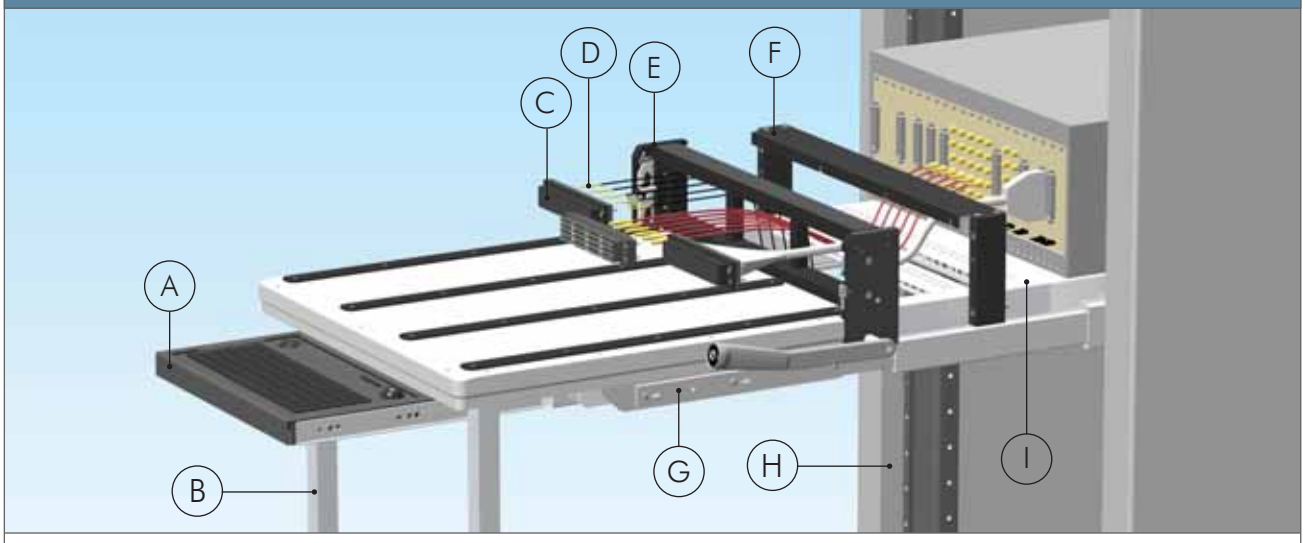
For maximum versatility and easy access to instrument-side wiring and cable assemblies, VPC offers a selection of slide kits designed to fit most common rack depths. Slides are rated to support 180 lbs (81 kg) to accommodate large fixtures. To order, first choose the G12 receiver with the proper platform size for maximum fixture support. Next, measure rack depth between mounting rails. With this measurement, choose the slide mounting kit that fits the rack. A rack extender kit is available for mounting to racks with recessed rails.

Part #	Description
RECEIVERS	
310 104 325	Receiver, G12, 12 Module with 15" Platform
310 104 334	Receiver, G12, 12 Module with 20" Platform
ITA	
410 104 322	ITA, G12, Front Mount, 12 Module with Protective Cover
ENCLOSURE	
410 112 665	Enclosure, G12 , Front Mount
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
SLIDE KITS	
310 113 409	20" Slide Kit, Fits 18"–21.8" Deep Racks, Supports 180 lbs
310 113 410	24" Slide Kit, Fits 22"–25.8" Deep Racks, Supports 180 lbs
310 113 451	28" Slide Kit, Fits 26"–29.8" Deep Racks, Supports 180 lbs
310 113 411	30" Slide Kit, Fits 28"–31.8" Deep Racks, Supports 180 lbs
PROTECTIVE COVERS	
310 113 402	Protective Cover, Receiver, G12
410 112 681	Protective Cover, ITA, G12, (included with Part # 410 104 322)
ACCESSORIES	
310 113 433	Gap Cover, G12, Rack Mount
310 113 406	Rack Extender Kit, G12, 1.5" Deep
310 113 424	Cable Tray, Slide Configuration, for Strain Relief and Cable Management
310 113 453	Instrument Bracket Kit with Strain Relief, Slide Configuration
310 113 415	Adjustable Leg Kit for the 20" Platform, 31", Supports 350 lbs. (See page 48 for other leg kit heights.)
310 113 439	Keyboard Tray Kit, Slide Configuration, Keyboard with Touchpad Mouse Included

For exploded view with accessories, see page 38.

** For installation instructions, see the G12 User's Manual at vpc.com*

G12 Slide Configuration with Accessories



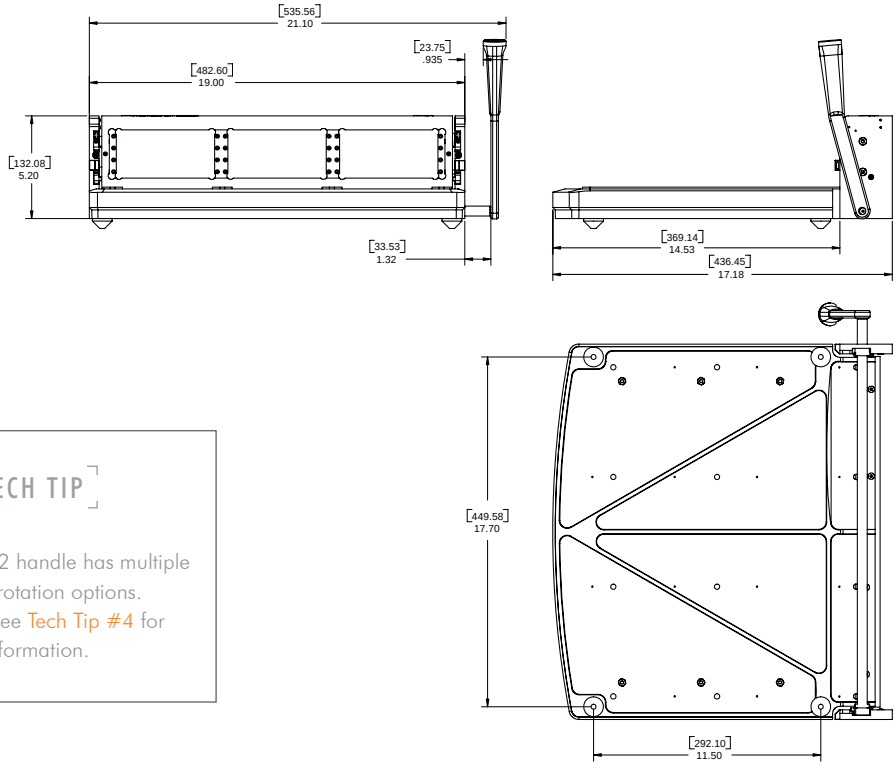
A. Keyboard Tray
B. Adjustable Leg Kit
C. Receiver Module
D. Receiver Patchcords
E. G12 Receiver with 20" Platform
F. Rack Extender Kit
G. Slide Kit
H. Rack with Instruments
I. Instrument Bracket Kit

The 20" table along with the adjustable leg kit for the G12 allow maximum weight support for heavy fixtures. If your needs are strain relief for wires running back to the testing equipment, then the cable tray is a clean, secure method. It mounts directly to the slide kit so it moves with the full system. The Rack Mount Extender Block Kit is used to mount to a rack with rails recessed more than 1". The keyboard tray kit can be easily integrated into the G12 system by attaching directly to the slides under the 15" or 20" platform.

Part #	Description
RECEIVERS	
310 104 325	Receiver, G12, 12 Module with 15" Platform
310 104 334	Receiver, G12, 12 Module with 20" Platform
ITA	
410 104 322	ITA, G12, Front Mount, 12 Module with Protective Cover
ENCLOSURE	
410 112 665	Enclosure, G12 , Front Mount
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
SLIDE KITS	
310 113 409	20" Slide Kit, Fits 18"–21.8" Deep Racks, Supports 180 lbs
310 113 410	24" Slide Kit, Fits 22"–25.8" Deep Racks, Supports 180 lbs
310 113 451	28" Slide Kit, Fits 26"–29.8" Deep Racks, Supports 180 lbs
310 113 411	30" Slide Kit, Fits 28"–31.8" Deep Racks, Supports 180 lbs
PROTECTIVE COVERS	
310 113 402	Protective Cover, Receiver, G12
410 112 681	Protective Cover, ITA, G12, (included with Part # 410 104 322)
ACCESSORIES	
310 113 433	Gap Cover, G12, Rack Mount
310 113 406	Rack Extender Kit, G12, 1.5" Deep
310 113 424	Cable Tray, Slide Configuration, for Strain Relief and Cable Management
310 113 453	Instrument Bracket Kit with Strain Relief, Slide Configuration
310 113 415	Adjustable Leg Kit for the 20" Platform, 31", Supports 350 lbs. (See page 48 for other leg kit heights.)
310 113 439	Keyboard Tray Kit, Slide Configuration, Keyboard with Touchpad Mouse Included

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

12 Module Solution • G12 Receiver with 15" Platform



TECH TIP

The G12 handle has multiple handle rotation options. Please see Tech Tip #4 for more information.

➤ Receiver, G12, 12 Module with 15" Platform • **Part # 310 104 325**

Receiver Specifications

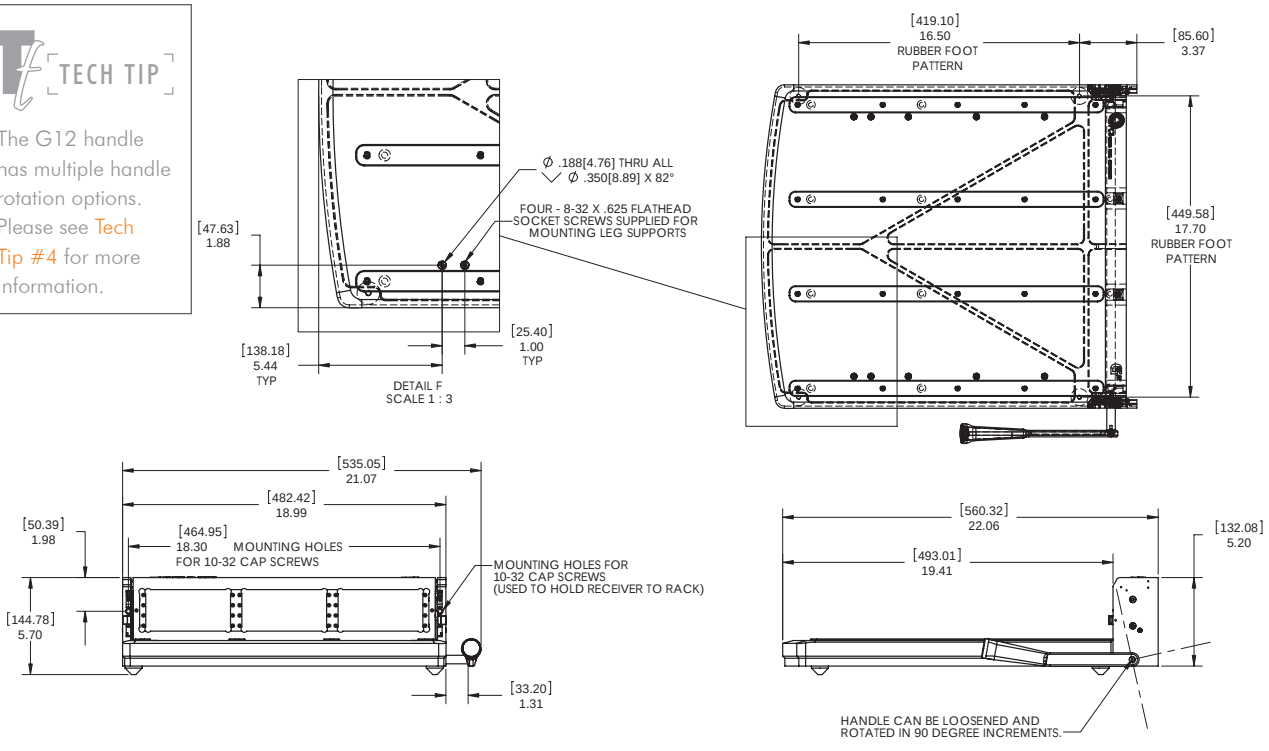
Weight	16.95 lbs [7.68 Kg]
Frame Material	Anodized and Powder Coated Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	12 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	350 lbs @ 6" (124.74 Kg @ 15.25 cm)

The 15" G12 Receiver provides rack and tabletop mounting options. The 15" platform will support 180 lbs when used in a slide mount configuration. The Receiver is equipped with VPC's Quadratrack™ engagement system which provides four points of pull down for a reliable connection every time beyond 20,000 cycles. The G12 handle can be rotated in 90° increments.

12 Module Solution • G12 Receiver with 20" Platform

TECH TIP

The G12 handle has multiple handle rotation options. Please see Tech Tip #4 for more information.



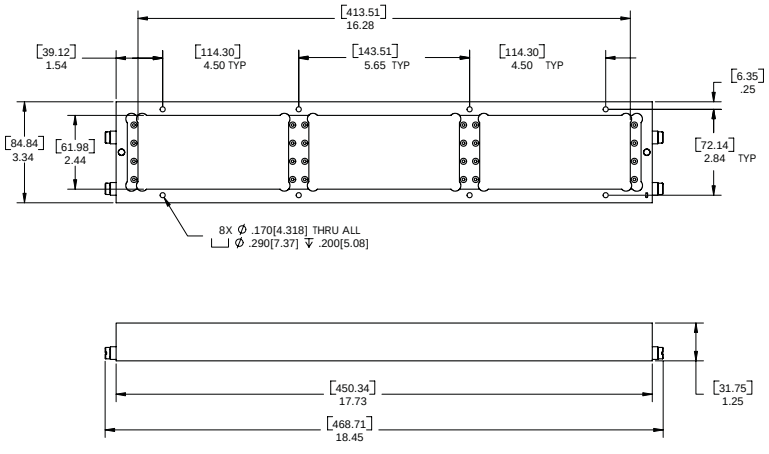
➤ Receiver, G12, 12 Module with 20" Platform • **Part # 310 104 334**

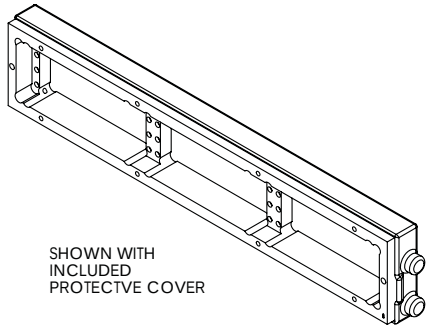
Receiver Specifications

Weight	26.21 lbs [11.88 Kg]
Frame Material	Anodized and Powder Coated Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	12 Positions
Cycle Life	20,000 Cycles
Temperature	−55° C to 85° C
Maximum Weight Support	350 lbs @ 6" (124.74 Kg @ 15.25 cm)

The 20" G12 Receiver provides a large platform for use with large fixtures. When used in conjunction with VPC slide mounts and support legs, the Receiver can support 350 lbs. This Receiver is used in a tabletop or slide configuration. The G12 handle can be rotated in 90 degree increments.

12 Module Solution • G12 ITA





TECH TIP

The G12 has custom enclosure requirements. Please see Tech Tip #5 for more information.

➤ ITA, G12, Front Mount, 12 Module with Protective Cover • **Part # 410 104 322**

ITA Specifications

Weight	2.35 lbs [1.08 Kg]
Frame Material	Chromated Aluminum
Available Module Slots	12 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

The G12 ITA can be used with all G12 Receivers. The ITA can be used in a number of applications to accomplish the required connection to the Unit Under Test (UUT). You can mount a VPC enclosure or customize your own fixture to be attached to the ITA. These are front mounted for ease of installation. A wide range of ITA modules are available separately for user configuration.

G12 • Accessories

The Gap Cover is used to cover the open area between the G12 Receiver and rack. The Gap Cover is not needed when using Rack Extender Kit, Part # 310 113 406.

Gap Cover, G12, Slide Configuration
Part # 310 113 433

VPC provides wiring Enclosures for the G12 ITA. The aluminum enclosure features a hinged cover plate with ¼ turn hardware and provides easy access to the ITA wiring.

Front Mount Enclosure, ITA, G12
Part # 410 112 665

The ITA Protective Cover protects your contacts and modules in case of harsh impact. An ITA Protective Cover is included with the G12 ITA, Part # 410 104 322.

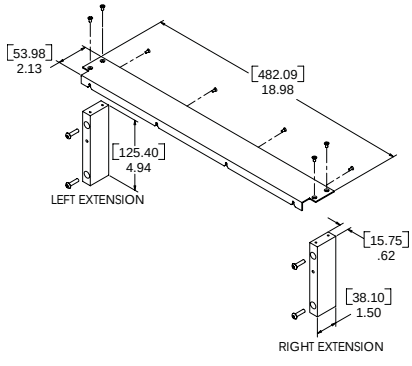
Protective Cover, ITA, G12
Part # 410 112 681

The Receiver Protective Cover prevents damage to your modules and contacts and keeps your test system in proper working order.

Protective Cover, Receiver, G12
Part # 310 113 402

TECH TIP

Please see Tech Tip #7 for more information.



The Rack Extender Kit is used for mounting to racks with recessed mounting rails recessed more than 1". It is made of aluminum with a black anodized finish. NOTE: Used only with slide mounted G12 Receivers.

Rack Extender Kit, G12, 1.5" Deep • **Part # 310 113 406**

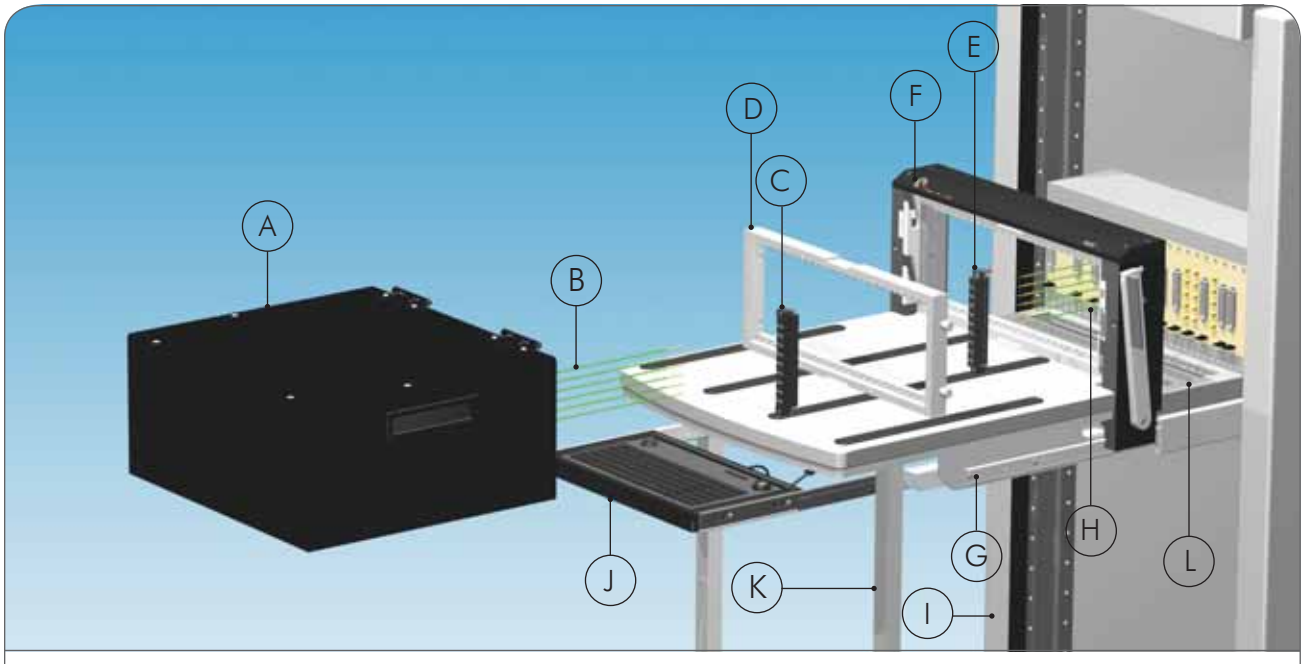
25 Module Platform Solution • 9025TR

The 9025 TR offers all the benefits of the standard 9025, and is outfitted with a 20 inch platform to support your enclosure while engaging and disengaging. The front-mount ITA is user-friendly, allowing the enclosure or fixture to be fastened from the mating side. Runners along the platform provide a smooth-sliding action, able to support fixtures up to 180 pounds.

Features and Benefits

- Includes the same features of the horizontal systems (S6 & G12) in a 25 module solution
- The docking feature provides an easy way to guide a fixture into position prior to engagement
- NEW front mount ITA allows insertion of screws from the front, saving time and protecting wiring
- 20" platform supports ITA when not in use (up to 180 lbs./ 350 lbs. with legs)
- The 9025TR can be adapted to accommodate vacuum or mechanical fixturing
- Uses all standard modules and contacts, and includes a microswitch
- Accomodates over 5,900 signal contacts
- Accessories available: slide kit, support legs, retractable keyboard and instrument bracket with strain relief

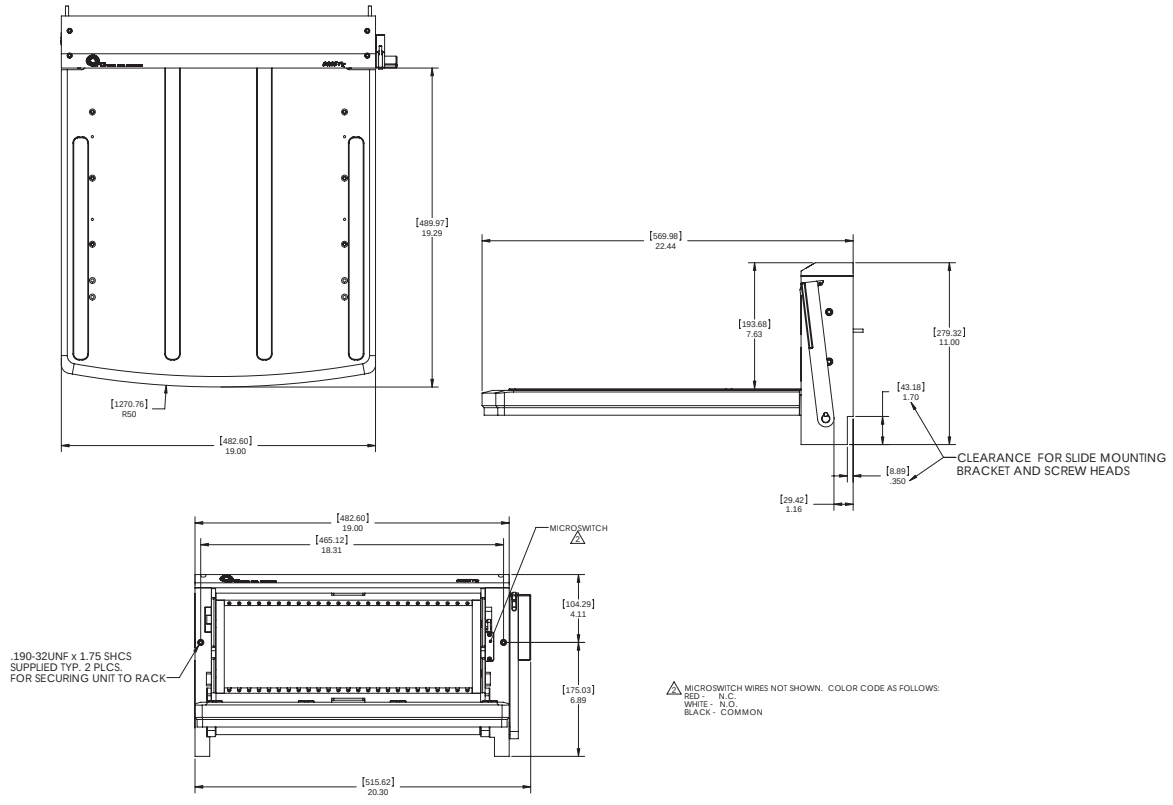
9025TR Receiver



A. ITA Enclosure
B. ITA Patchcords
C. ITA Module
D. 9025TR ITA
E. Receiver Module
F. 9025TR Receiver with Platform
G. Slide Kit
H. Receiver Patchcords
I. Rack with Instruments
J. Keyboard Tray
K. Adjustable Leg Kit
L. Instrument Bracket Kit

Part #	Description
RECEIVER	
310 104 363	Receiver, 9025TR, 25 Module, with 20" Platform (slide kit required)
ITA	
410 104 451	ITA, 9025, 25 Module, Front Mount
ENCLOSURE	
410 112 823	Enclosure, 25 Module, For Front Mount ITA (410 104 451)
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
SLIDE KITS	
310 113 409	20" Slide Kit, Fits 18"-21.8" Deep Racks, Supports 180 lbs.
310 113 410	24" Slide Kit, Fits 22"-25.8" Deep Racks, Supports 180 lbs.
310 113 451	28" Slide Kit, Fits 26"-29.8" Deep Racks, Supports 180 lbs
310 113 411	30" Slide Kit, Fits 28"-31.8" Deep Racks, Supports 180 lbs.
LEG KITS	
310 113 412	Adjustable Leg Kit for the 20" Platform, 27", Supports 350 lbs.
310 113 414	Adjustable Leg Kit for the 20" Platform, 29", Supports 350 lbs.
310 113 415	Adjustable Leg Kit for the 20" Platform, 31", Supports 350 lbs.
310 113 474	Adjustable Leg Kit for the 20" Platform, 34", Supports 350 lbs.
ACCESSORIES	
310 113 424	Cable Tray, Slide Configuration, for Strain Relief and Cable Management
310 113 439	Keyboard Tray Kit, Slide Configuration (keyboard included)
310 113 453	Instrument Bracket Kit with Strain Relief
410 112 578	Protective Cover, 9025, 9025VXI & 9025TR, ITA
310 113 494	Rack Extender Kit, 9025TR, 1.5" Deep
310 113 163	Protective Cover, 9025, 9025VXI & 9025TR, Receiver

25 Module Solution • 9025TR Receiver with Platform



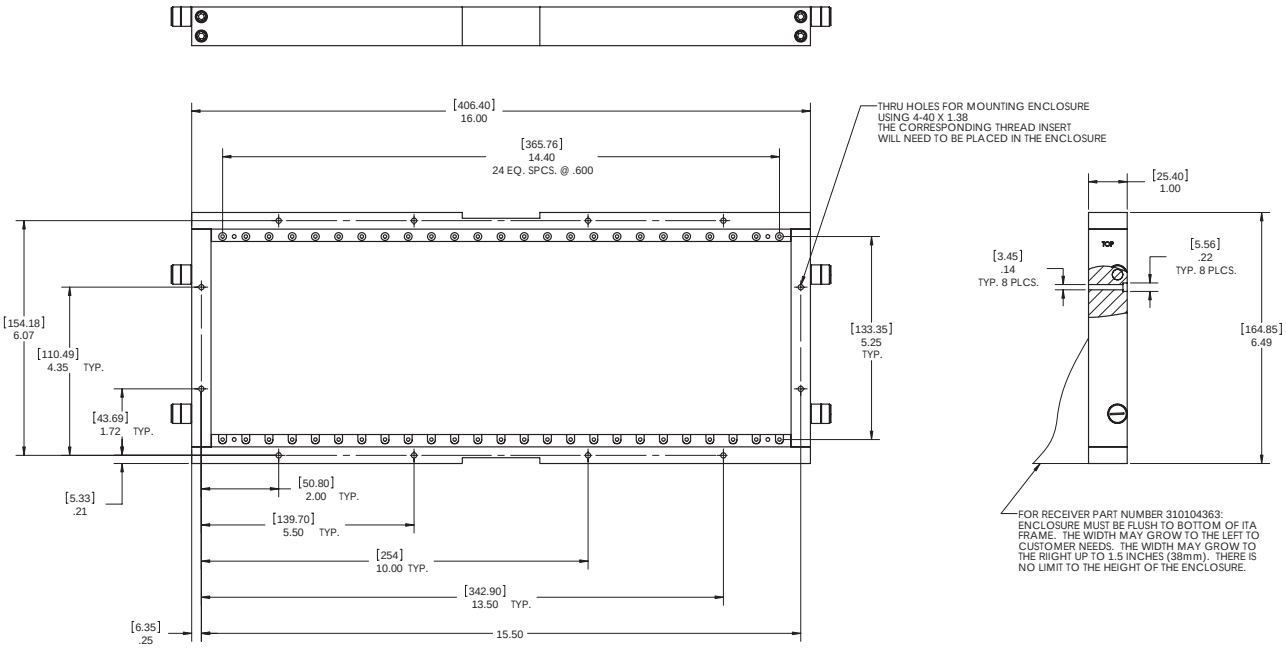
➤ Receiver, 9025TR, 25 Module, with 20" Platform (slide kit required) • **Part # 310 104 363**

Receiver Specifications

Weight	29.50 lbs [13.38 Kg]
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	25 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Max. Weight Support	180 lbs @ 12" (81.65 Kg @ 30.5 cm) 350 lbs @ 6" (124.74 Kg @ 15.25 cm)

Runners along the platform provide a smooth-sliding action, ideal when using fixtures up to 180 pounds. When used in conjunction with VPC slide mounts and support legs, the Receiver can support 350 lbs. The 9025TR can be adapted to accommodate vacuum or mechanical fixturing. VPC modules can be intermixed to establish flexible custom interfaces which are ideal for functional and system testing applications. The 9025TR uses all standard modules and contacts, includes a microswitch and is available with optional table legs and keyboard tray kit. Slide kit required.

25 Module Solution • 9025TR ITA



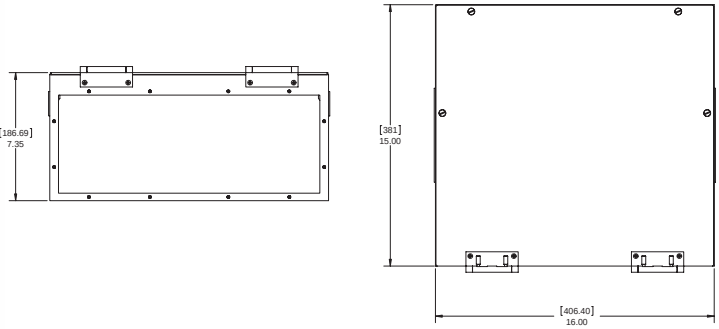
➤ ITA, 9025, 25 Module, Front Mount • **Part # 410 104 451**

ITA Specifications

Weight	2.6 lbs [1.18 Kg]
Frame Material	Chromated Aluminum
Available Module Slots	25 Positions
Cycle Life	20,000 Cycles
Temperature	–55°C to 85°C

This is a front mount ITA to be used with front mount enclosures only.

9025TR • Accessories



For use with Front Mount ITA, Part Number 410 104 451.

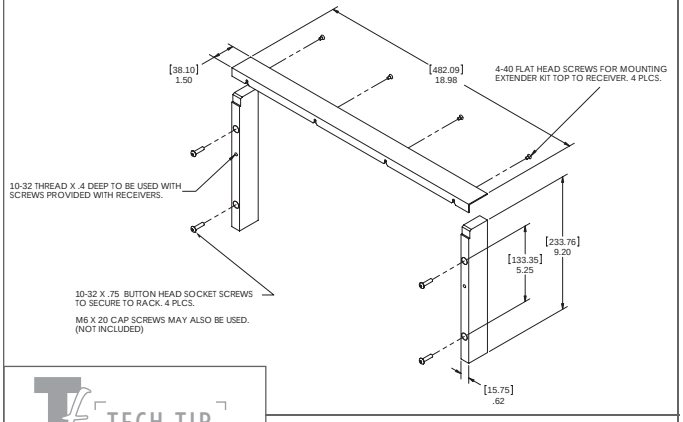
➤ Enclosure, 25 Module, For Front Mount ITA • **Part # 410 112 823**

The aluminum ITA Protective Cover is more durable and shock resistant to protect your contacts and modules when the ITA is not in use.

➤ Protective Cover, ITA, 25 Module
Part # 410 112 578

The Receiver Protective Cover is optional to protect your modules and contacts when the ITA is not engaged. The Protective Cover is made up of anodized aluminum.

➤ Protective Cover, Receiver, 25 Module
Part # 310 113 163


[38.10]
1.50
[482.09]
18.98
4-40 FLAT HEAD SCREWS FOR MOUNTING EXTENDER KIT TOP TO RECEIVER. 4 PLCS.
10-32 THREAD X .4 DEEP TO BE USED WITH SCREWS PROVIDED WITH RECEIVERS.
[233.76]
9.20
[133.35]
5.25
10-32 X .75 BUTTON HEAD SOCKET SCREWS TO SECURE TO RACK. 4 PLCS.
M6 X 20 CAP SCREWS MAY ALSO BE USED. (NOT INCLUDED)
[15.75]
.62

TECH TIP

Please see Tech Tip #7 for more information.

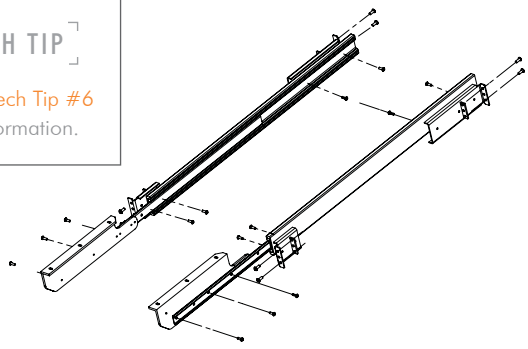
The Rack Extender Kit is used for mounting to racks with recessed mounting rails recessed more than 1". It is made of aluminum with a black anodized finish.

➤ Rack Extender Kit, 9025TR, 1.5" Deep • **Part # 310 113 494**

S6, G12, 9025TR • Accessories

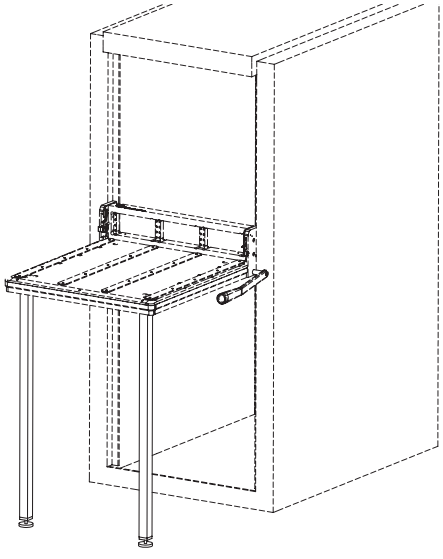
TECH TIP

Please see Tech Tip #6 for more information.



Measure rack depth between mounting rails to determine the slide mounting kit that fits the rack. A rack extender kit is available for mounting to racks with recessed rails. Complete installation instructions are available at vpc.com.

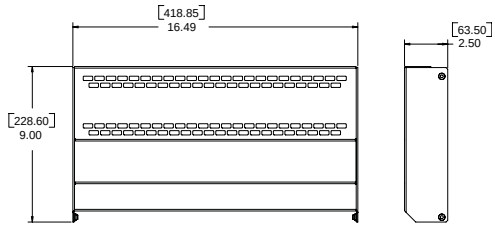
- 20" Slide Kit (fits 18" – 21.8" deep racks) Supports 180 lbs • **Part # 310 113 409**
- 24" Slide Kit (fits 22" – 25.8" deep racks) Supports 180 lbs • **Part # 310 113 410**
- 28" Slide Kit (fits 26" – 29.8" deep racks) Supports 180 lbs • **Part # 310 113 451**
- 30" Slide Kit (fits 28" – 31.8" deep racks) Supports 180 lbs • **Part # 310 113 411**

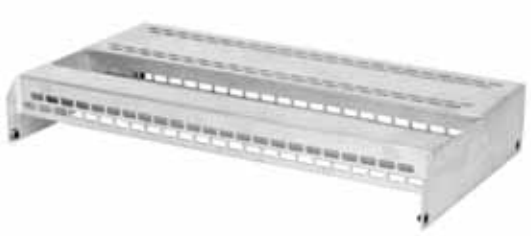


The Adjustable Extended Leg Kit is designed to alleviate added weight from your enclosure by giving the platform extra support. Rack and G12 Receiver shown for reference only.

- Adjustable Leg Kit for the 20" Platform, 27", Supports 350 lbs • **Part # 310 113 412**
- Adjustable Leg Kit for the 20" Platform, 29", Supports 350 lbs • **Part # 310 113 414**
- Adjustable Leg Kit for the 20" Platform, 31", Supports 350 lbs • **Part # 310 113 415**
- Adjustable Leg Kit for the 20" Platform, 34", Supports 350 lbs • **Part # 310 113 474**

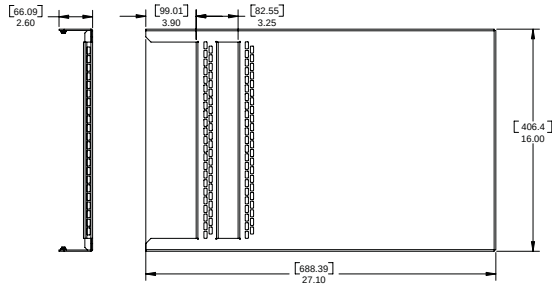
S6, G12, 9025TR • Accessories





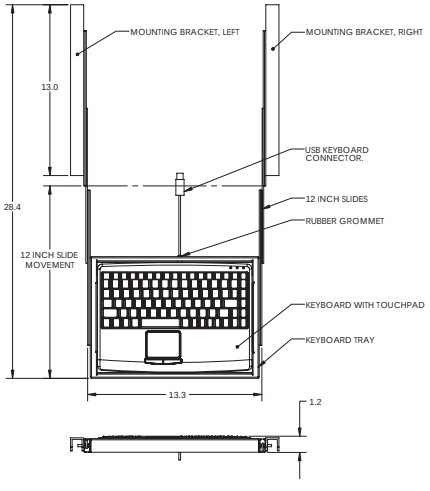
The Cable Tray is designed to act as strain relief for the cables that flow back to the testing instrument from the S6, G12 and 9025TR receivers. It is used only in slide configurations.

➤ Cable Tray, Receiver Side Strain Relief and Cable Management • Part # **310 113 424**



The Instrument Brackets work only with the slide configuration and they are used to mount the testing instrument to the slides. The brackets allow the test instruments to slide out for maintenance access and have a strain relief area in the front of the bracket to tie down wires and cables. Instrument Bracket Kit does not work with the Cable Tray.

➤ Instrument Bracket Kit with Strain Relief, for Slide Configuration • **Part # 310 113 453**



The Keyboard Tray Kit is used with the S6, G12 & 9025TR in slide configurations. The keyboard with touchpad mouse connects to the computer's USB port.

➤ Keyboard Tray Kit • Part # **310 113 439**

Reveal the Possibilities
with G2, G6 and G10 Solutions.

G2

Mounting Options

- Easy to use in rack or chassis mount applications
- Designed for use with VPC's Vertical Hinged Mounting Frame, Panels or other mounting devices
- Optional Keying Pin Kit distinguishes between multiple ITAs to avoid operational mismatch

G6

Slide-off Backshell

- Slide off the backshell for easy wiring access
- Built-in cable clamps for securing all types of wiring

Compact, High Density Solution

- Ideal for applications requiring a mix of I/O, with various module configurations available
- Mate over 400 (G2), 1,400 (G6), or 2,400 (G10) signal contacts in one application
- Provide outstanding performance in various applications

Standard QuadraTrack™

- Engaging Mechanism in the form of a pair of precision machined slides located in the Receiver
- Distributes uniform pressure to four points on the ITA during engagement and disengagement
- Precise signal integrity between the Receiver and ITA is maintained by QuadraTrack™ engagement system

Vertical Hinged Mounting Frames

- Vertical Hinged Mounting Frames make it easy to access your instrument chassis
- No unplugging all wires and cables to troubleshoot
- Quick locking latches allow easy open and closing motions

G10

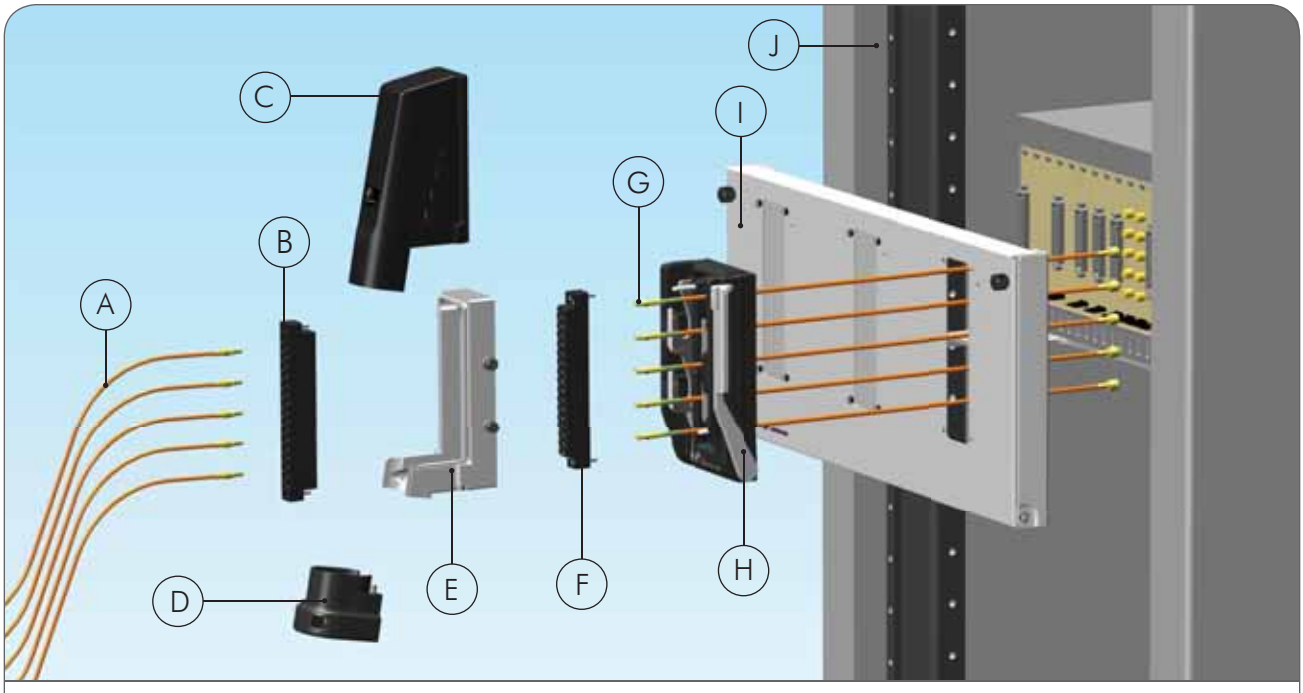
2 Module Solution • G2

The G2 offers the reliability of VPC InterConnect technology in a compact high-density, two-module package. Simultaneously engaging a wide range of InterConnect options in multiple configurations, the G2 provides a rapid alternative to repeated connect/disconnect of individual leads and connectors in a rugged, reliable system.

Features and Benefits

- Precision engagement mechanism engineered to mate over 400 contacts
- Cable mount ITA includes EMI-shielded cover that slides off to allow easy access to wiring
- Cable mount ITA accepts standard circular cable adapters
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Available keying kit distinguishes between multiple G2s used in the same application
- Modular and reconfigurable for evolving tests requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions

G2 Receiver and ITA

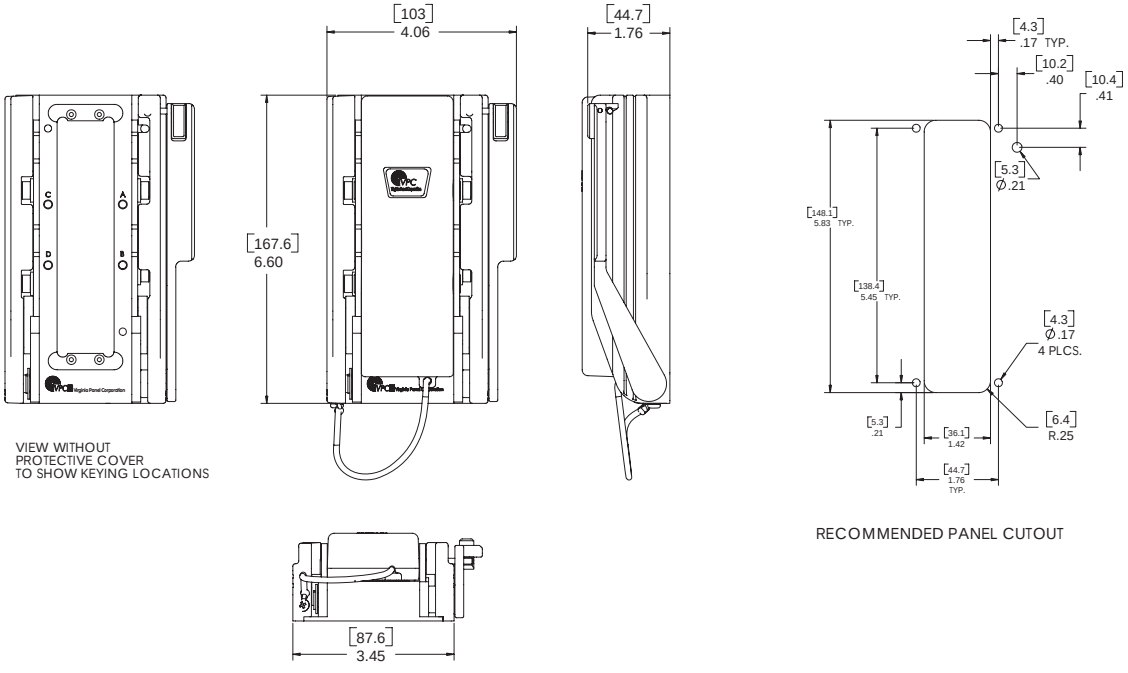


A. ITA Patchcords
B. ITA Module
C. ITA Removable Cover
D. U-Shaped Clamp
E. G2 ITA
F. Receiver Module
G. Receiver Patchcords
H. G2 Receiver
I. Vertical Hinged Mounting Frame
J. Rack With Instruments

Part #	Description
RECEIVER	
310 120 110	Receiver, G2, 2 Module with Keying Feature
ITAS	
410 120 110	ITA with Removable Cover, G2, 2 Module with Keying Feature
410 120 112	ITA, G2, 2 Module
410 120 120	ITA, G2, 2 Module with 10 Module Enclosure and Adapter Plate
ENCLOSURE	
410 112 686	Enclosure, G2, 2 Module (for ITA #410 120 112)
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
MOUNTING FRAMES	
310 113 391	Vertical Hinged Mounting Frame, G2, 5U, 3 Position (2 Blank Plates Included)
310 113 395	Fixed Mounting Panel, G2, 5U, 3 Position (2 Blank Plates Included)
310 113 358	Vertical Hinged Mounting Frame, 5U, Blank
PROTECTIVE COVERS	
310 113 394	Protective Cover, G2, Receiver (included with Part # 310 120 110)
410 112 680	Protective Cover, G2, ITA (included with Part # 410 120 110)
ADDITIONAL ACCESSORIES	
310 118 112	Keying Pin Kit, Receiver/ITA
410 112 599	Threaded Coupling Adapter, ITA, G2 for Conduit Harnessing Assemblies/Clamps
310 113 417	Chassis Mount Kit for National Instruments PXI-1045 and PXI-1044 Chassis
310 113 371	Chassis Mount Kit for Pickering 40-918, 18 Slot Chassis

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

2 Module Solution • G2 Receiver



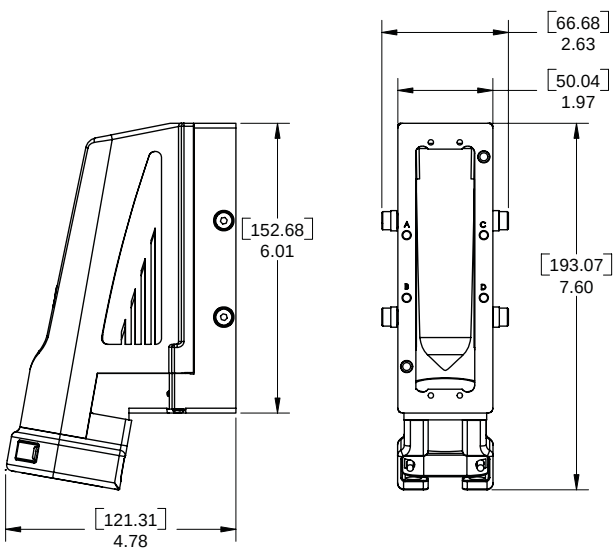
➤ Receiver, G2, 2 Module with Keying Feature • **Part # 310 120 110**

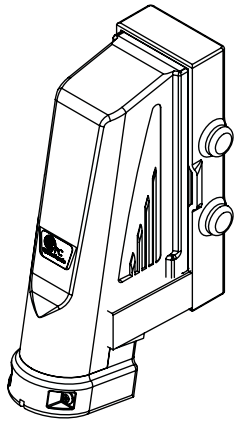
Receiver Specifications

Weight	1.82 lbs [.82 Kg]
Side Material	ABS-Polycarbonate Blend
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	2 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	25 lbs @ 6" (11 Kg @ 15.25 cm)

The Receiver for the Gemini G2 is equipped with a locking handle and nickel plated steel slides that engage up to 480 contact points. It allows a high amount of I/O within a compact and rugged device. The Receiver is accompanied by a Protective Cover to use when the ITA is not engaged.

2 Module Solution • G2 ITA with Removable Cover





SHOWN WITH THE INCLUDED PROTECTIVE COVER.

➤ ITA with Removable Cover, G2, 2 Module with Keying Feature • **Part # 410 120 110**

ITA Specifications

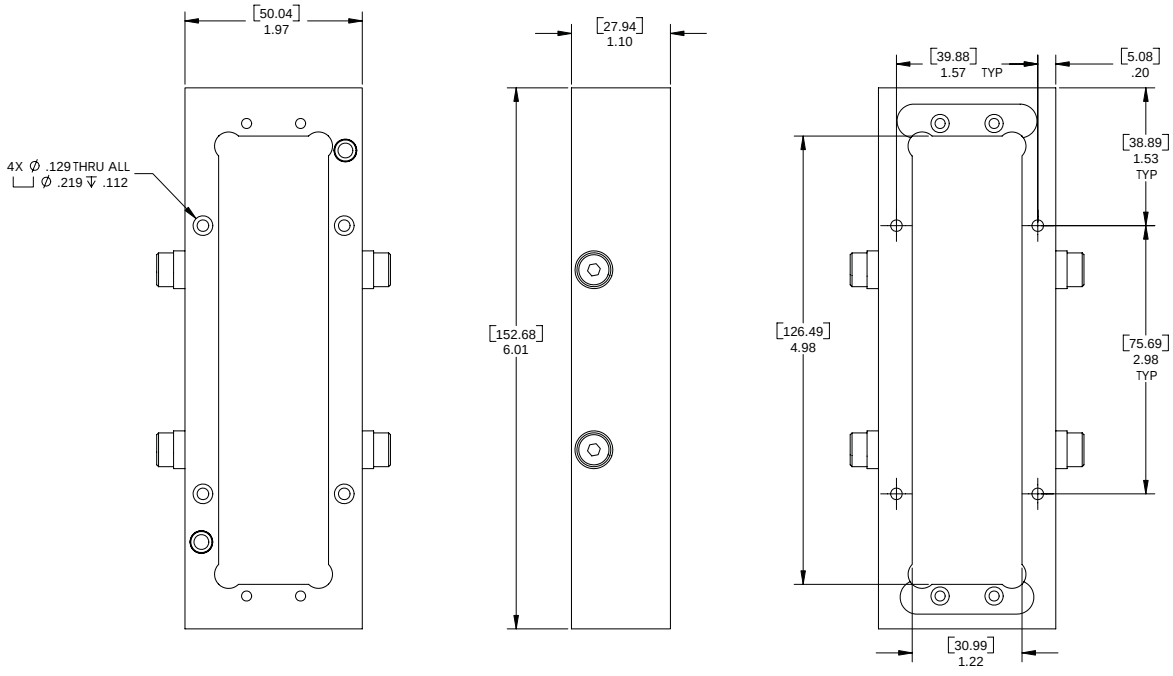
Weight	1.65 lbs [.75 Kg]
Cover Material	EMI-shielded Nylon
Frame Material	Nickel Plated Zinc Alloy
Available Module Slots	2 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

TECH TIP

The U-shaped Cable clamp is adjustable to accommodate the amount of wires in your cable bundle. For the equation, please see Tech Tip #1.

The G2 ITA is equipped with a removable EMI-shielded cover. The cover slides up to provide access to wires and connectors and is secured by two screws. The removable and adjustable U-shaped cable clamp is attached by screws to the ITA frame. Please see the Tech Tips section for installation instructions and wire size considerations.

2 Module Solution • G2 ITA



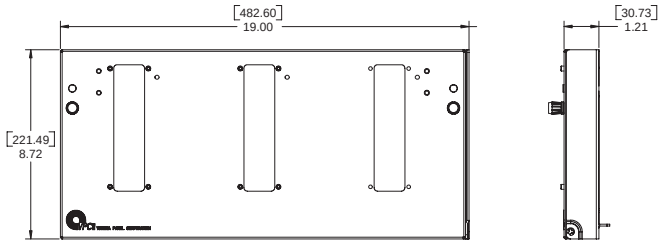
➤ ITA, G2, 2 Module • **Part # 410 120 112**

ITA Specifications

Weight	.61 lbs [0.28 Kg]
Frame Material	Chromated Aluminum
Available Module Slots	2 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

The performance and versatility of the 2 Module ITA present a convenient alternative to limited low I/O connectors. The aluminum frame has thru holes to mount an enclosure or other custom components to the wiring side of the ITA.

2 Module Solution • G2 Accessories



This mounting frame attaches to a 19" equipment rack or flanges to allow the panel to hinge down for wiring access. For use with standard rack, VXI, or PXI chassis.

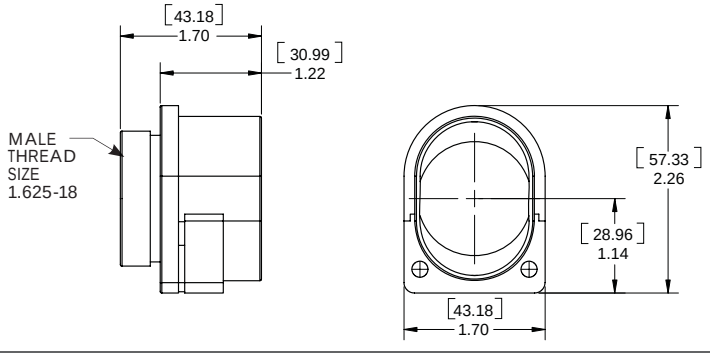
➤ Vertical Hinged Mounting Frame, G2, 5U, 3 Position, (2 Blank Plates Included) • **Part # 310 113 391**

The vinyl ITA Protective Cover is durable and shock resistant to protect your contacts and modules when the ITA is not in use. This item is included with ITA Part # 410 120 110.

➤ Protective Cover, G2, ITA
Part # 410 112 680

The Receiver Protective Cover is provided to keep your modules and contacts enclosed when the Receiver is not in use. This item is included with Receiver Part # 310 120 110

➤ Protective Cover, G2, Receiver
Part # 310 113 394



The Threaded Coupling Adapter is designed to accommodate military and commercial circular backshells for conduit or strain relief when designing for general and heavy-duty applications. The male thread size is 1.625-18.

➤ Threaded Coupling Adapter, G2, ITA for Conduit Harnessing Assemblies/Clamps • **Part # 410 112 599**

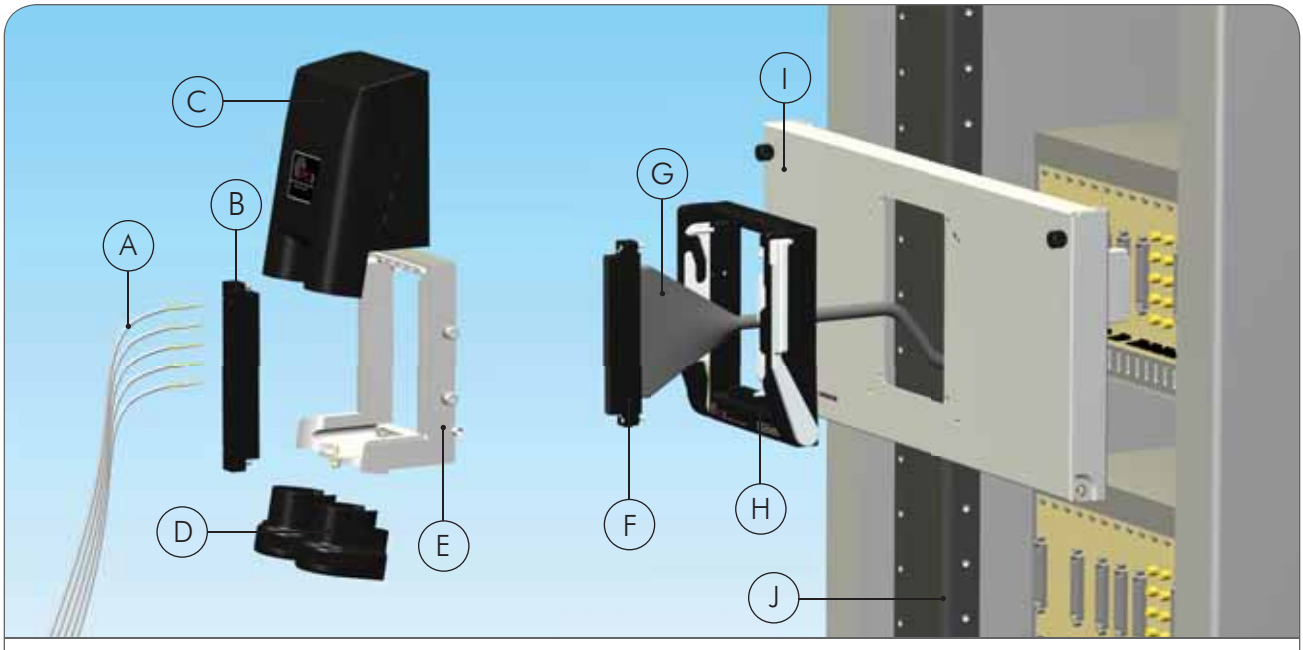
6 Module Solution • G6

The 6 Module Solution provides versatility on a small footprint. This small, high-density InterConnect can simultaneously engage over 1,400 signal contacts. The adaptable G6 integrates a wide variety of I/O options in various module configurations. The contacts are incorporated into cable assemblies for specific instruments. The Vertical Hinged Mounting Frame is suitable for rack or chassis mount applications and offers quick access to resources and cables. The ITA has a unique, removable, EMI-shielded cover which allows easy access to the modules and contacts.

Features and Benefits

- Precision engagement mechanism engineered to mate over 1,400 contacts
- Cable mount ITA includes EMI-shielded cover that slides off to allow easy access to wiring
- Cable mount ITA accepts standard circular cable adapters
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Available keying kit distinguishes between multiple G6s used in the same application
- Modular and reconfigurable for evolving tests requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions

G6 Receiver and ITA

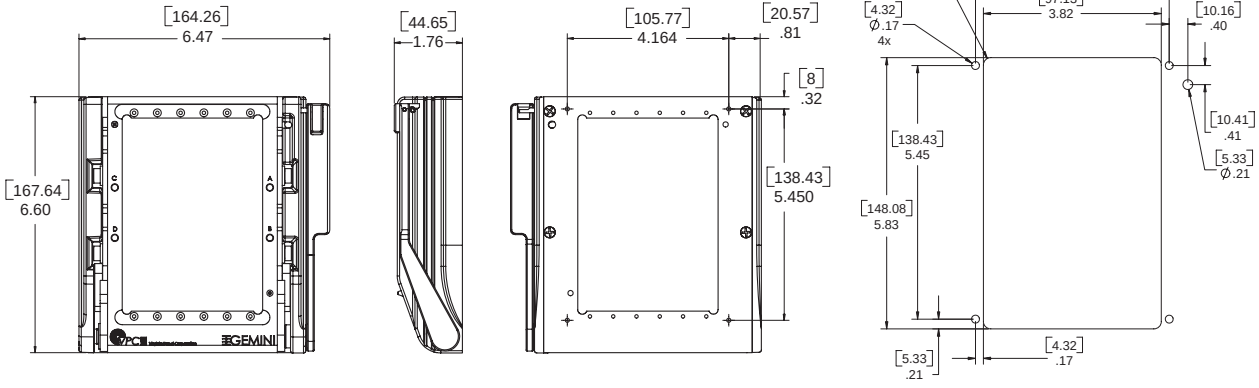


A. ITA Patchcords
B. ITA Module
C. ITA Removable Cover
D. U-Shaped Clamp
E. G6 ITA
F. Receiver Module
G. Cable Assembly
H. G6 Receiver
I. Vertical Hinged Mounting Frame
J. Rack With Instruments

Part #	Description
RECEIVERS	
310 104 318	Receiver, G6, 6 Module with Keying Feature
310 104 344	Receiver, G6, 6 Module with Keying Feature and EMI Gasket
ITAS	
410 104 273	ITA with Removable Cover, G6, 6 Module with Keying Feature
410 104 118	ITA, 6 Module for use with Enclosures
410 104 331	ITA, 6 Module, 0.87" [22 mm] Thick (eliminates the need for a spacer)
ENCLOSURES	
410 112 237	Enclosure, 6 Module with 2 Cable Clamps (for ITA Part # 410 104 118)
410 112 401	Enclosure, 6 Module, 4" Deep with Hinge (for ITA Part # 410 104 118)
276 199	0.50" [12.7 mm] Spacer for 6 Module ITA (allows wide enclosures to be mounted to Part # 410 104 118)
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
VERTICAL HINGED MOUNTING FRAMES	
310 113 341	Vertical Hinged Mounting Frame, G6, 5U, 1 Position
310 113 397	Vertical Hinged Mounting Frame, G6, 5U, 2 Positions
310 113 358	Vertical Hinged Mounting Frame, 5U, Blank
PROTECTIVE COVERS	
310 113 158	Protective Cover, G6, Receiver
410 112 684	Protective Cover, G6, ITA (included with Part # 410 112 684)
ACCESSORIES	
310 113 417	Chassis Mount Kit for National Instruments PXI-1045 and PXI-1044 Chassis
310 113 371	Chassis Mount Kit for Pickering 40-918, 18 Slot Chassis
310 118 112	Keying Pin Kit, Receiver/ITA

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

6 Module Solution • G6 Receiver



RECOMMENDED PANEL CUTOUT

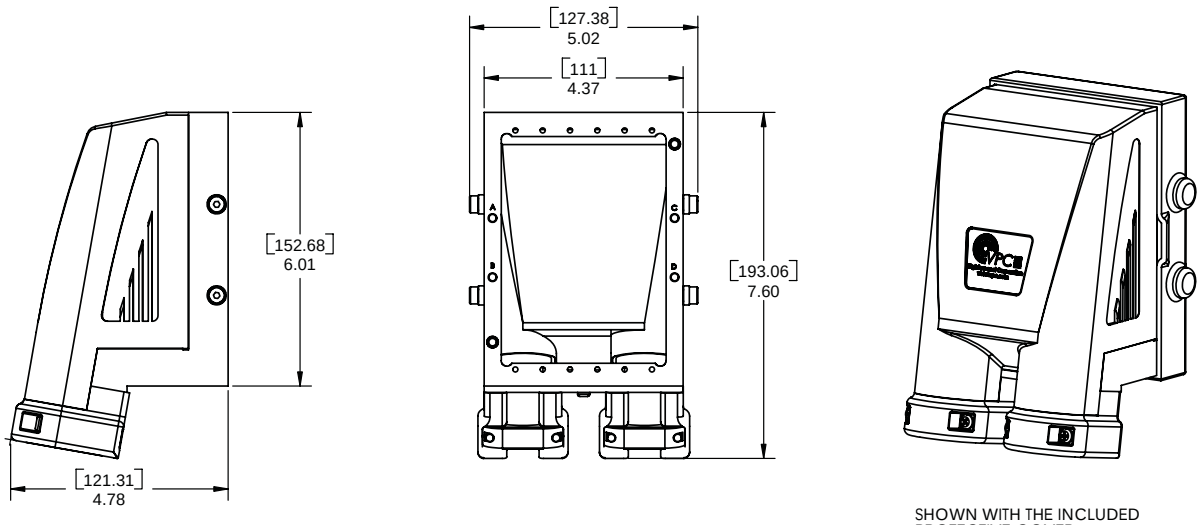
➤ Receiver, G6, 6 Module with Keying Feature • **Part # 310 104 318**

Receiver Specifications

Weight	1.94 lbs [.88 Kg]
Side Material	ABS-Polycarbonate Blend
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	6 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	25 lbs @ 6" (11 Kg @ 15.25 cm)

The Receiver for the G6 is equipped with a locking handle and nickel plated steel slides that engage up to 1,440 signal contact points. It allows a high amount of I/O within a compact and rugged device.

6 Module Solution • G6 ITA with Removable Cover



SHOWN WITH THE INCLUDED PROTECTIVE COVER.

➤ ITA with Removable Cover, G6, 6 Module with Keying Feature • **Part # 410 104 273**

ITA Specifications

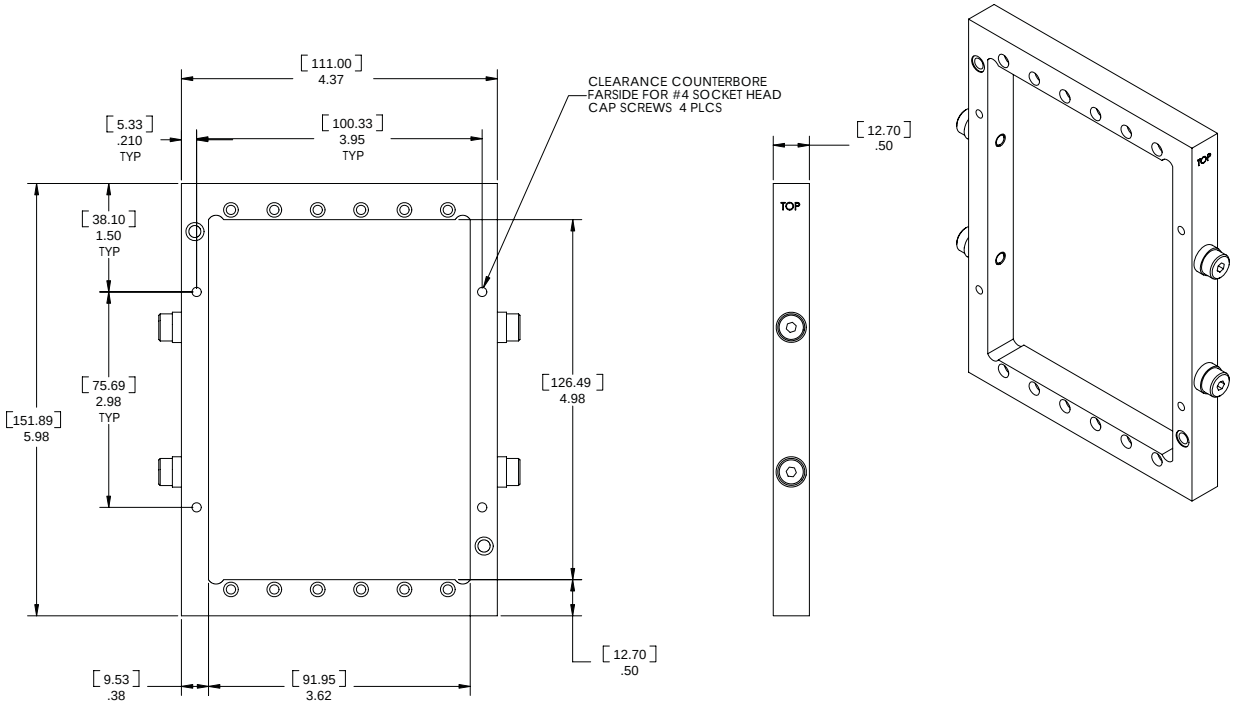
Weight	1.6 lbs [.73 Kg]
Cover Material	EMI-shielded Nylon
Frame Material	Chromated Aluminum
Available Module Slots	6 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

TECH TIP

The U-shaped Cable clamp is adjustable to accommodate the amount of wires in your cable bundle. For the equation, please see Tech Tip #1.

The ITA for the G6 is equipped with a removable EMI-shielded cover. The cover slides up to provide access to wires and connectors and is secured by two screws. The removable and adjustable U-shaped cable clamp is attached by screws to the ITA frame. Please see the Tech Tips section for installation instructions and wire size considerations. The G6 ITA includes an ITA protective cover.

6 Module Solution • ITA



➤ ITA, 6 Module • **Part # 410 104 118**

ITA Specifications

Weight	.45 lbs [.204 Kg]
Frame Material	Chromated Aluminum
Available Module Slots	6 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

The ITA allows an option to use an existing enclosure or create your own enclosure or fixture needed for your specific application.

6 Module Solution • G6 Accessories

This aluminum enclosure is for the ITA Part # 410 104 118. It is an alternative to the ITA with removable cover.

➤ Enclosure, ITA, 6 Module with 2 Cable Clamps
Part # 410 112 237

This mounting frame attaches to flanges to allow the Receiver to hinge down for wiring access. For use with standard racks, VXI, or PXI chassis.

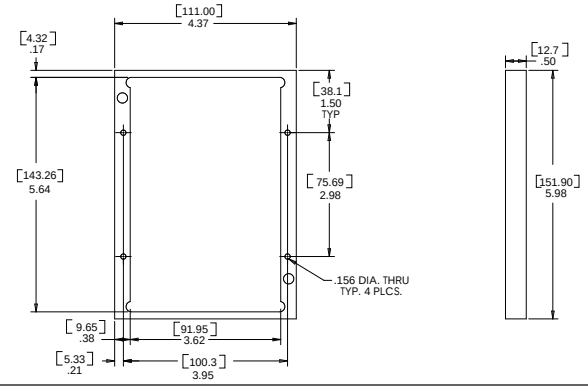
➤ Vertical Hinged Mounting Frame, G6, 5U, 1 Position
Part # 310 113 341

The vinyl ITA Protective Cover protects your contacts and modules when the ITA is not in use. This item is included with ITA Part # 410 104 273.

➤ Protective Cover, G6, ITA
Part # 410 112 684

The Receiver Protective Cover is optional to keep your modules and contacts enclosed when the Receiver is not in use.

➤ Protective Cover, G6, Receiver
Part # 310 113 158



This spacer allows wide enclosures to be mounted to Part #410 104 118.

➤ 0.50" [12.7 mm] Spacer for 6 Module ITA • **Part # 276 199**

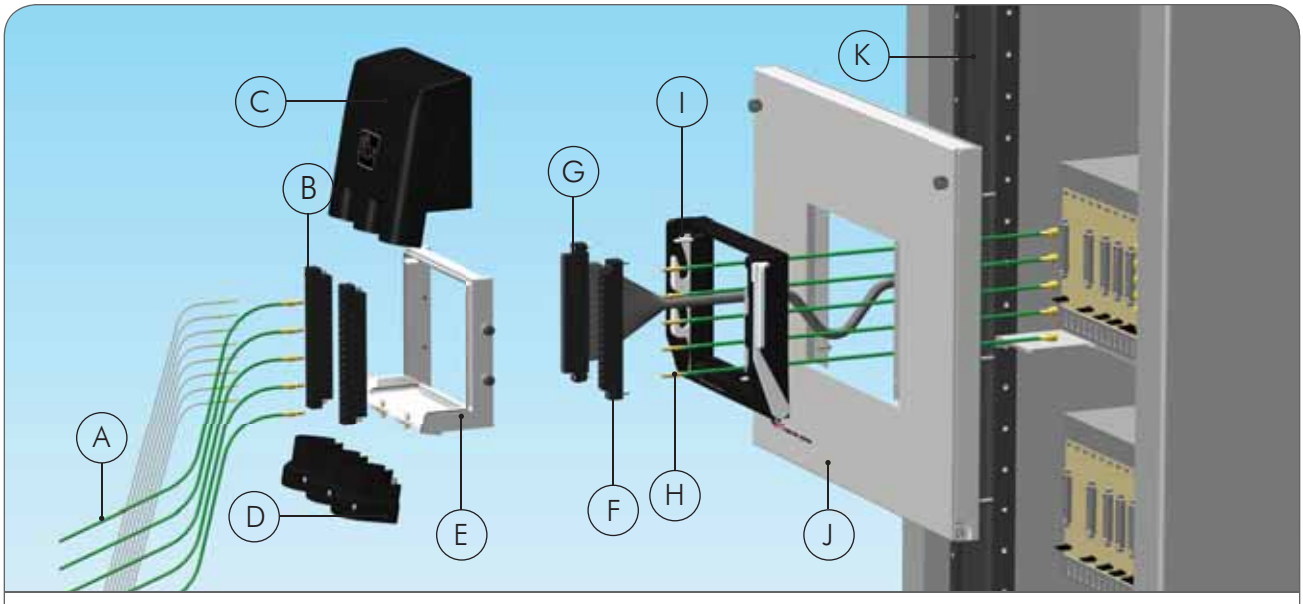
10 Module Solution • G10

The 10 Module Solution provides great reliability while simultaneously engaging up to 2,400 signal contacts. The adaptable G10 integrates a wide variety of I/O options in various module configurations. The contacts are incorporated into cable assemblies for specific instruments. The Vertical Hinged Mounting Frame is suitable for rack or chassis mount applications and offers quick access to resources and cables. The ITA has a unique, removable, EMI-shielded cover which allows easy access to the modules and contacts.

Features and Benefits

- Precision engagement mechanism engineered to mate up to 2,400 contacts
- Cable mount ITA includes EMI-shielded cover that slides off to allow easy access to wiring
- Cable mount ITA accepts standard circular cable adapters
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Modular and reconfigurable for evolving tests requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions

G10 Receiver and ITA

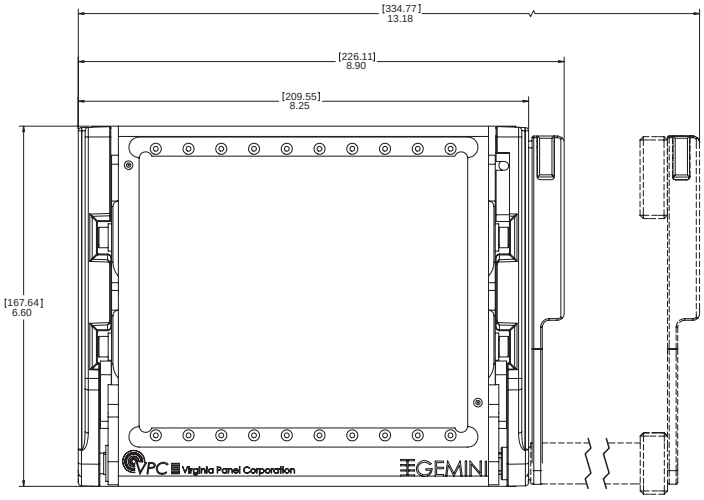


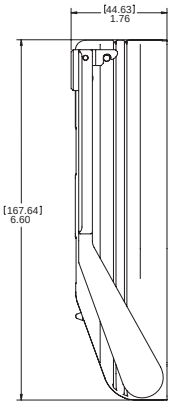
A. ITA Patchcords
B. ITA Module
C. ITA Removable Cover
D. U-Shaped Clamp
E. G10 ITA
F. Receiver Module
G. Cable Assembly
H. Receiver Patchcords
I. G10 Receiver
J. Vertical Hinged Mounting Frame
K. Rack With Instruments

Part #	Description
RECEIVERS	
310 104 317	Receiver, G10, 10 Module
310 104 360	Receiver, G10, 10 Module with 4.34" [110.24 mm] Extended Handle
ITAS	
410 104 272	ITA with Removable Cover, G10, 10 Module
410 104 123	ITA, 10 Module for use with Enclosures
410 104 375	ITA, 10 Module, 0.87" [22 mm] Thick (eliminates the need for a spacer)
ENCLOSURES	
410 112 252	Enclosure, 10 Module with 3 Cable Clamps (for ITA Part # 410 104 123)
410 112 291	Enclosure, 10 Module with Hinged Cover Plate (for ITA Part # 410 104 123)
410 112 198	Enclosure, 25 Module (use with adapter plate)
276 198	0.50" [12.7 mm] Spacer for 10 Module ITA (allows wide enclosures to be mounted to Part # 410 104 123)
410 112 424	Adapter Plate, allows 10 Module ITA to accept 25 Module Enclosures
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
MOUNTING FRAMES	
310 113 342	Vertical Hinged Mounting Frame, G10, 5U
310 113 382	Vertical Hinged Mounting Frame, G10, 9U
310 113 408	Vertical Hinged Mounting Frame, G10, 5U, Cutout on Right
310 113 358	Vertical Hinged Mounting Frame, Blank, 5U
PROTECTIVE COVERS	
310 113 154	Protective Cover, G10, Receiver
410 112 685	Protective Cover, G10, ITA (included with Part # 410 104 272)
ACCESSORIES	
310 113 417	Chassis Mount Kit for National Instruments PXI-1045 and PXI-1044 Chassis
310 113 371	Chassis Mount Kit for Pickering 40-918, 18 Slot Chassis

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

10 Module Solution • G10 Receiver



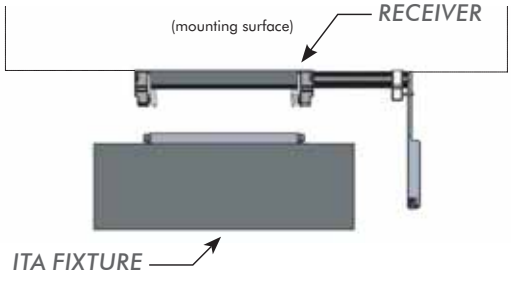


For recommended panel cutout and mounting hole patterns, please see www.vpc.com/part/310104360

Receiver, G10, 10 Module • **Part # 310 104 317**

Receiver Specifications

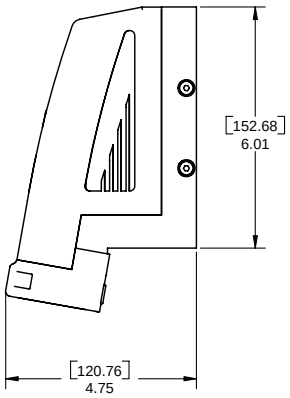
Weight	2.20 lbs [1.0 Kg]
Side Material	ABS-Polycarbonate Blend
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	10 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	25 lbs @ 6" (11 Kg @ 15.25 cm)

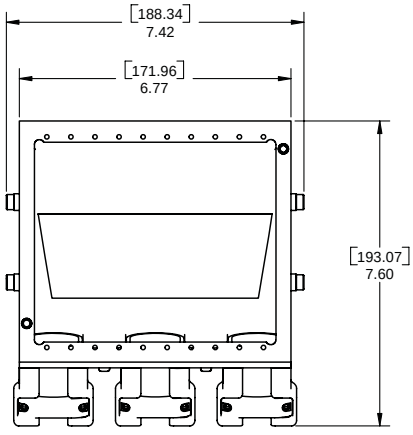


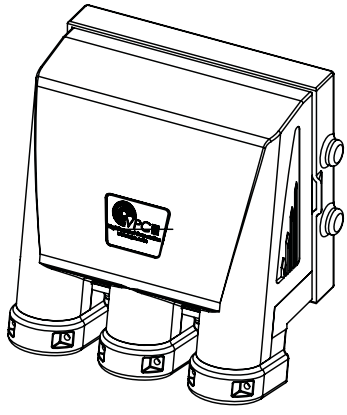
This Receiver is also available with a 4.34" [110.24 mm] Extended Handle, Part # 310 104 360, to accommodate wide fixtures.

The Receiver for the G10 is equipped with a locking handle and nickel plated steel slides that engage up to 2,400 contact points. It allows a high number of I/O within a compact and rugged device. This Receiver is also available with a 4.34" [110.24 mm] Extended Handle, Part # 310 104 360.

10 Module Solution • G10 ITA with Removable Cover







SHOWN WITH THE INCLUDED PROTECTIVE COVER.

ITA with Removable Cover, G10, 10 Module • **Part # 410 104 272**

ITA Specifications

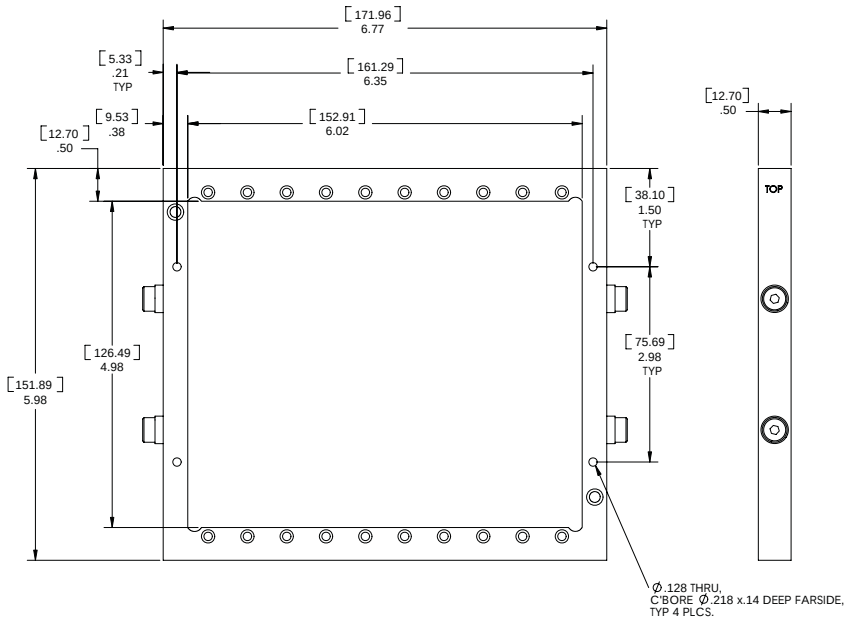
Weight	2.1 lbs [.95 Kg]
Cover Material	EMI-shielded Nylon
Frame Material	Chromated Aluminum
Available Module Slots	10 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

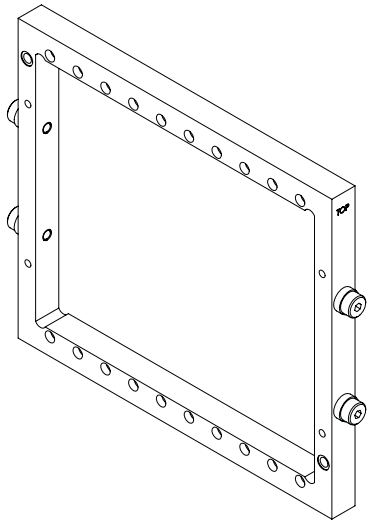
TECH TIP

The U-shaped Cable clamp is adjustable to accommodate the amount of wires in your cable bundle. For the equation, please see Tech Tip #1.

The G10 ITA is equipped with a removable EMI-shielded cover. The cover slides up to provide access to wires and connectors and is secured by two screws. The removable and adjustable U-shaped cable clamp is attached by screws to the EMI-shielded cover. Please see the Tech Tips section for installation instructions and wire size considerations. The G10 ITA also includes an ITA protective cover.

10 Module Solution • ITA





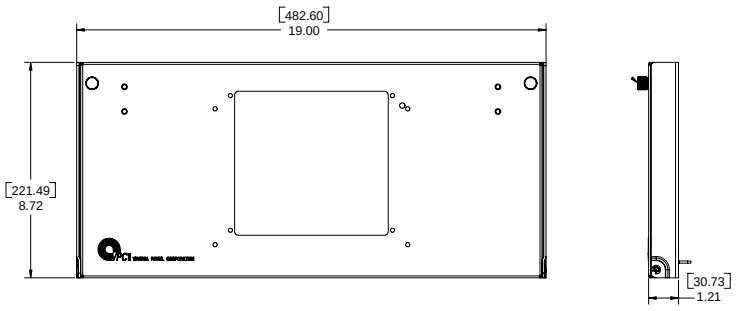
ITA, 10 Module • **Part # 410 104 123**

ITA Specifications

Weight	.55 lbs [.24 Kg]
Frame Material	Chromated Aluminum
Available Module Slots	10 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

The ITA uses VPC enclosures or gives you the option to create your own enclosure or fixture needed for your application.

10 Module Solution • G10 Accessories



This mounting frame attaches to flanges supplied by the chassis manufacturer and allows the Receiver to bolt directly on the mounting plate. For use with standard racks, VXI, or PXI chassis.

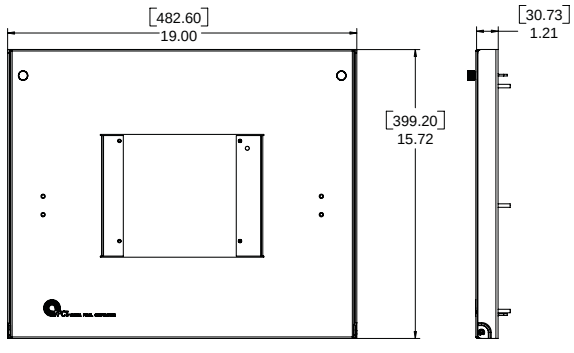
➤ Vertical Hinged Mounting Frame, G10, 5U • **Part # 310 113 342**

The vinyl ITA Protective Cover is durable and shock resistant to protect your contacts and modules when the ITA is not in use. This item is included with ITA Part # 410 104 272.

➤ Protective Cover, G10, ITA
Part # 410 112 685

The Receiver Protective Cover is optional to keep your modules and contacts enclosed when the ITA is not in use.

➤ Protective Cover, G10, Receiver
Part # 310 113 154



This mounting frame attaches to flanges allowing the Receiver to bolt directly on the mounting plate. For use with standard racks.

➤ Vertical Hinged Mounting Frame, G10, 9U • **Part # 310 113 382**

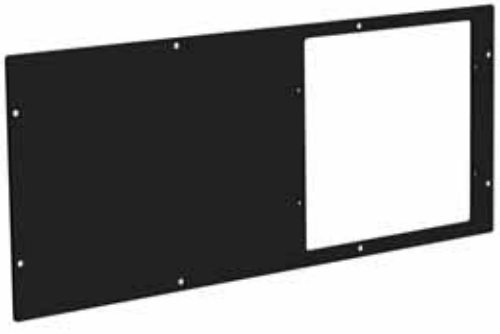
10 Module Solution • G10 Accessories

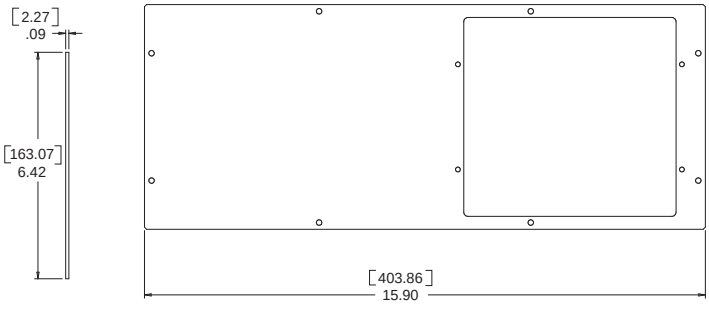
This aluminum enclosure is for ITA Part # 410 104 123 and allows your 10 Module Solution to be customized to your needs.

This aluminum enclosure for ITA Part # 410 104 123 has handles and includes a hinging cover secured with two ¼ turn fasteners.

➤ Enclosure, 10 Module with 3 Cable Clamps **Part # 410 112 252**

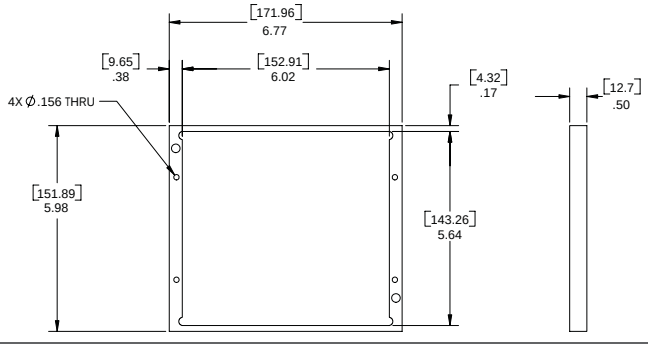
➤ Enclosure, 10 Module with Hinged Cover Plate **Part # 410 112 291**





The Adapter Plate allows the user to use standard 25 Module Enclosures with the 10 Module ITA. See enclosures in the 25 Module section for more options.

➤ Adapter Plate, allows 10 Module ITA to accept 25 Module Enclosure • **Part # 410 112 424**



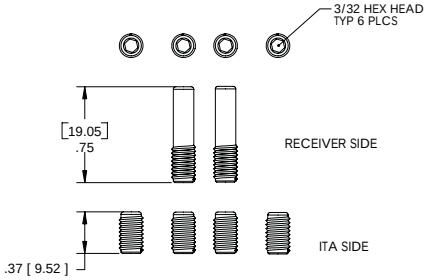
Add this spacer between the ITA and enclosure will allow you to expand your enclosure to greater dimensions than the ITA.

➤ 0.50" [12.7 mm] Spacer for 10 Module ITA • **Part # 276 198**

2, 6, 10 Module Solution • Accessories

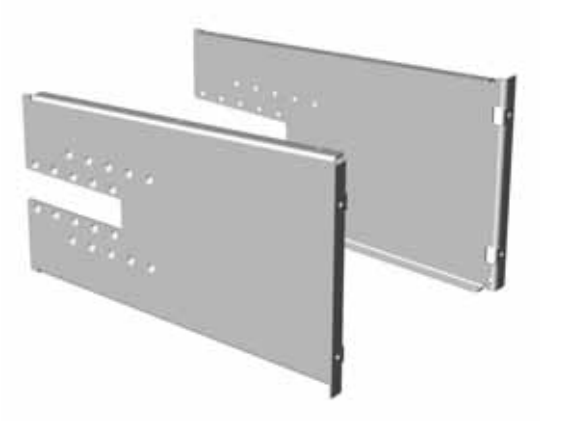
TECH TIP

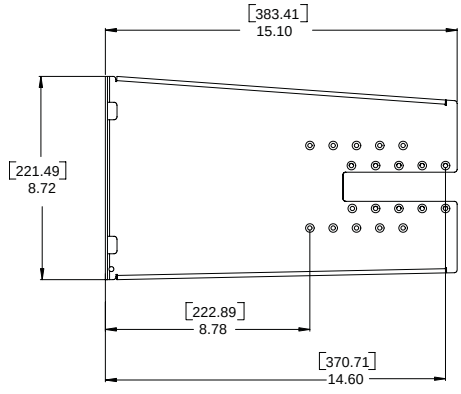
Please see Tech Tip #2 for Keying Plug Locations.



The Keying Pin Kit is a way to avoid damaging contacts within ITAs and Receivers as a result of mating the incorrect ITA to the Receiver. Use the longer keying pins with the Receiver and the smaller set screws with the ITA to isolate your test fixtures so there is no operational mismatch. This kit works with the G2 and the G6 only.

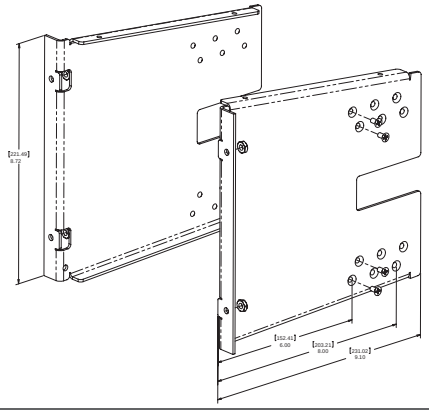
➤ Keying Pin Kit, Receiver/ITA • **Part # 310 118 112**





Chassis Mount Kit, Part # 310 113 417 allows you to mount 5U Vertical Hinged Mounting Frames to the chassis with 5 different depth settings.

➤ Chassis Mount Kit for National Instruments PXI-1045 and PXI-1044 Chassis • **Part # 310 113 417**



Chassis Mount Kit, Part # 310 113 371 allows you to mount 5U Vertical Hinged Mounting Frames to the chassis with 3 different depth settings.

➤ Chassis Mount Kit for Pickering 40-918, 18 Slot Chassis • **Part # 310 113 371**

Uncover the unique features of G18.

Versatile 18 Module Receiver

- Ideal for PXI applications and can allow space up to an 18 slot chassis
- Ability to engage over 4,300 contacts in one motion with the locking handle
- Perfect combination of I/O and economy

Vertical Hinged Mounting Frame

- Vertical Hinged Mounting Frame bolts directly onto any Standard 19" Rack and allows the G18 to hinge down for easy access wiring
- Incorporated hinge supports the Receiver when the system is hinged open
- Frame has an integrated tie down bar to provide wiring strain relief

PXI

Adaptable Enclosure

- Large enclosure provides ample space for internal wiring
- ITA enclosure easily accepts secondary connectors

Secure Hanger

- Hanger feature on the G18 receiver allows the ITA to remain on the receiver when it is not engaged
- ITA with enclosure will drop in place when handle is lowered to engage the system
- Flush hangers are available for horizontal applications

Standard QuadraTrack™

- Engaging Mechanism in the form of a pair of precision machined slides located in the Receiver
- Distributes uniform pressure to four points on the ITA during engagement and disengagement
- Precise signal integrity between the Receiver and ITA is maintained by QuadraTrack™ engagement system

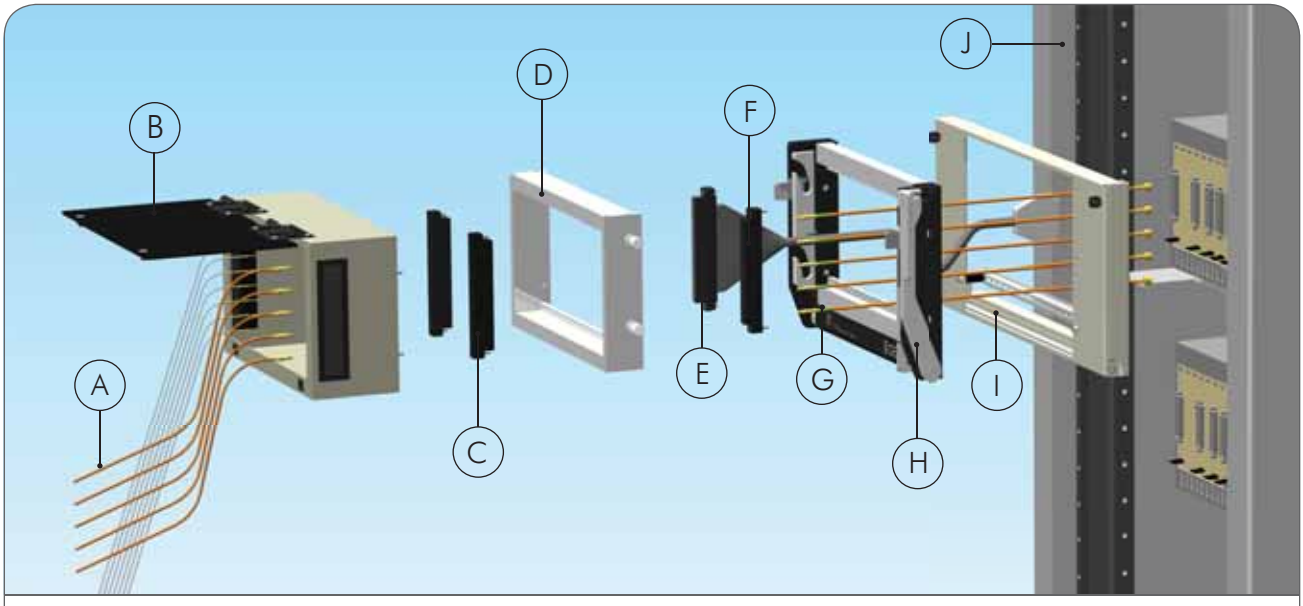
18 Module Solution • G18

The 18 Module system is the ideal InterConnect solution for 18 slot PXI chassis'. This high-density InterConnect can simultaneously engage over 4,300 signal contacts. The adaptable G18 integrates a wide variety of I/O options in various module configurations. The contacts are incorporated into cable assemblies for specific instruments. The Vertical Hinged Mounting Frame is suitable for rack or chassis mount applications and offers quick access to resources and cables.

Features and Benefits

- Precision engagement mechanism engineered to mate over 4,300 contacts
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Modular and reconfigurable for evolving tests requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions
- Rack Mounted G18 with a Vertical Hinged Mounting Frame and associated accessories offer easy access to cables and test instrumentation

G18 Receiver



A. ITA Patchcords
B. ITA Enclosure
C. ITA Modules
D. G18 ITA
E. Cable Assembly
F Receiver Module
G. Receiver Patchcords
H. 18 Module Receiver
I. Vertical Hinged Mounting Frame
J. Rack With Instruments

Part #	Description

RECEIVER

310 120 101	Receiver, G18, 18 Module for Discrete Wiring

ITA

410 120 111	ITA, G18, 18 Module

ENCLOSURE

410 112 527	Enclosure, ITA, G18, 4" Deep

NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.

VERTICAL HINGED MOUNTING FRAMES

310 113 322	Vertical Hinged Mounting Frame, G18, 5U
310 113 328	Vertical Hinged Mounting Frame, G18, 9U
310 113 358	Vertical Hinged Mounting Frame, Blank, 5U

PROTECTIVE COVERS

310 113 327	Protective Cover, G18, Receiver
410 112 541	Protective Cover, G18, ITA

CHASSIS MOUNT KITS

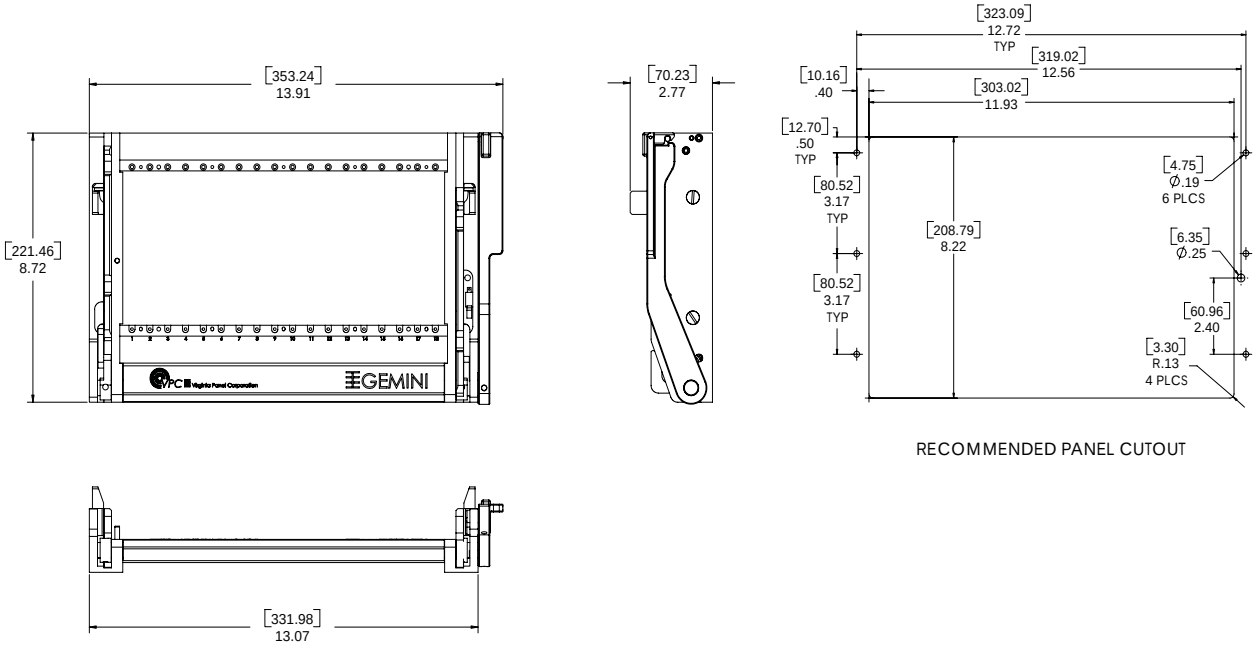
310 113 417	Chassis Mount Kit for National Instruments PXI-1044 and PXI-1045 Chassis
310 113 371	Chassis Mount Kit for Pickering 40-918, 18 Slot Chassis

HORIZONTAL MOUNT OPTION

310 120 102	Receiver, G18, 18 Module with Flush Hangers
310 113 331	Hinged Shelf Mounting Frame, G18, Horizontal Configuration
310 113 434	Locking Handle Spring Plunger Accessory

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

18 Module Solution • G18 Receiver



RECOMMENDED PANEL CUTOUT

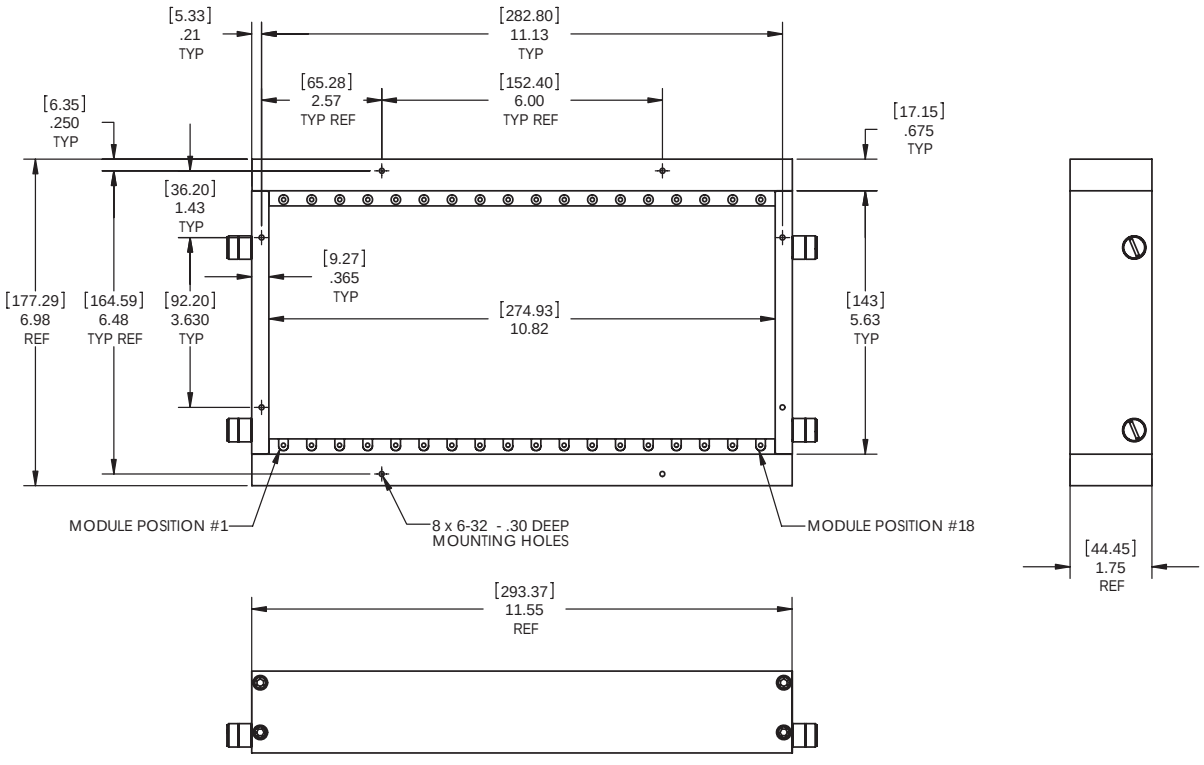
➤ Receiver, G18, 18 Module for Discrete Wiring • **Part # 310 120 101**

Receiver Specifications

Weight	6.9 lbs [3.13 Kg]
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	18 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	25 lbs @ 6" (11 Kg @ 15.25 cm)

The lightweight and rugged 18 Module Receiver provides a solution that will accommodate larger ATE chassis' (PXI, VXI, SCXI). It allows immense versatility by affording space for up to an 18 slot PXI chassis.

18 Module Solution • G18 ITA

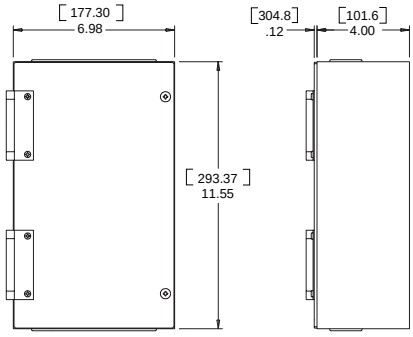


➤ ITA, G18, 18 Module • **Part # 410 120 111**

ITA Specifications

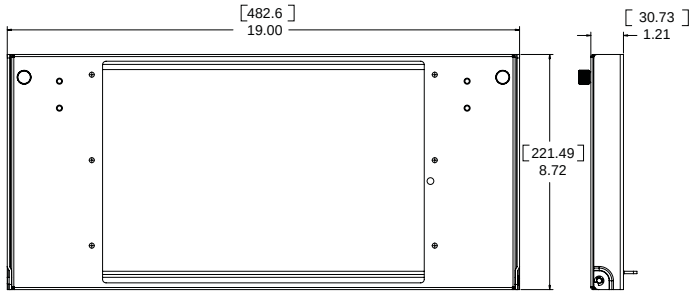
Weight	3.28 lbs [1.49 Kg]
Frame Material	Chromated Aluminum
Available Module Slots	18 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

You can mount a VPC enclosure or customize your own fixture to be attached on the frame. A wide range of ITA modules are available separately for user configuration. This solution is perfect for any medium to high I/O PXI application. The rugged aluminum frame provides secure mounting options for custom fixtures.



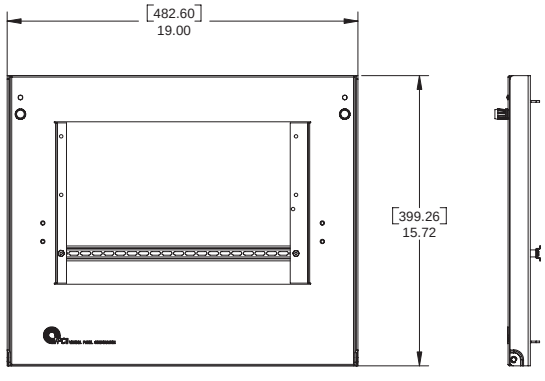
VPC provides wiring Enclosures for the 18 Module ITA. Made of aluminum, the Enclosure body is painted gray and features a hinged cover plate with ¼ hardware that provides easy access to the ITAs wiring. The Enclosure is secured to the ITA by eight #4 socket head cap screws (included with enclosure).

➤ Enclosure, G18, 4" Deep • **Part # 410 112 527**



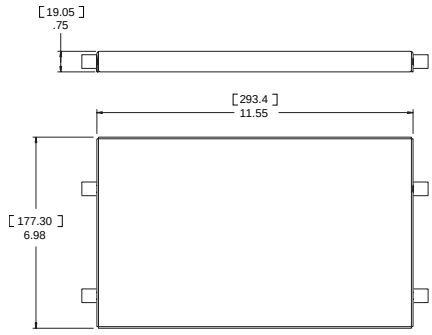
Virginia Panel has developed several Vertical Hinged Mounting Frames for use with standard rack, or PXI chassis. These mounting frames attach to their respective chassis using our chassis mount kits and allow the receiver to bolt directly on the mounting frame.

➤ Vertical Hinged Mounting Frame, G18, 5U • **Part # 310 113 322**



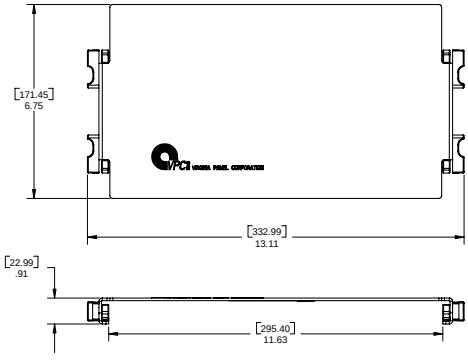
This 9U Vertical Hinged Mounting Frame accommodates an 18 Module Receiver. The 9U Height will cover a PXI or VXI chassis within a rack.

➤ Vertical Hinged Mounting Frame, G18, 9U • **Part # 310 113 328**



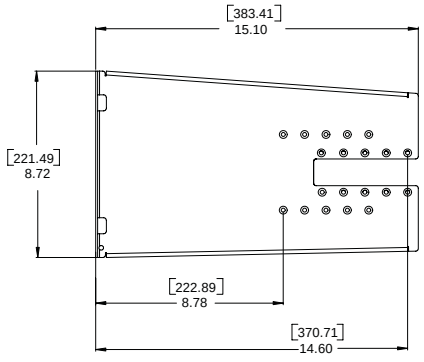
The Receiver Protective Cover is provided to keep your modules and contacts enclosed to prevent damage, keeping your test system in proper working order.

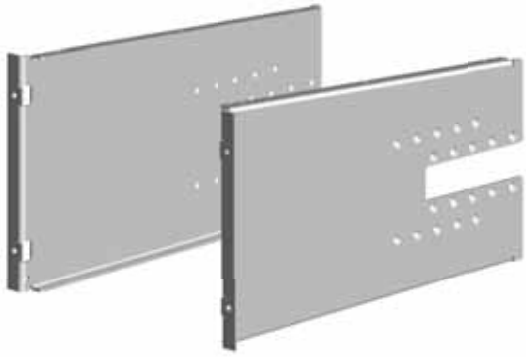
➤ Protective Cover, G18, Receiver • **Part # 310 113 327**



The ITA Protective Cover is made of aluminum making it very rigid to protect your contacts and modules when the ITA is not in use.

➤ Protective Cover, G18, ITA • **Part # 410 112 541**





Chassis Mount Kit, Part # 310 113 417 allows you to mount 5U Vertical Hinged Mounting Frames to the Chassis with 5 different depth settings.

➤ Chassis Mount Kit for National Instruments PXI-1045 and PXI-1044 Chassis • **Part # 310 113 417**

Explore the choices
with 9025, 9050 and 9075 systems.

Rack Mounting Applications

- The high I/O systems are ideal for rack mounting applications
- Can be used on a Vertical Hinged Mounting Frame to access wiring and instrumentation
- Time saving with rapid changeover

Easy Wiring with Cable Assemblies

- Combine our VXI Pre-wired InterConnect Adapters with cable assemblies to have the most rapid setup time
- Cable Assemblies can be created by VPC based on your testing instrumentation needs
- Standard cables are also available

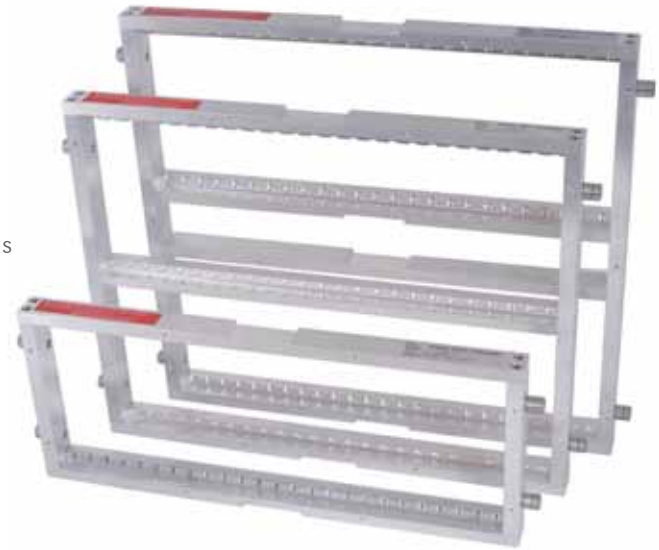
VXI PLUG & PLAY

Customize for Various Testing Needs

- Multiple ITAs are pre-configured for different tests
- Intermix connector modules to build custom interfaces
- Accommodate vacuum or mechanical fixturing

Standard ITAs

- Buy our ITAs with our standard enclosures, or attach them to your custom enclosure
- Guaranteed a precise fit to VPC receivers
- Have us customize our enclosure to fit your testing needs



Pre-Wired InterConnect Adapters

- Pre-wired InterConnect adapters act as a compact funnel for wiring directly to VXI cards
- Plug the connectors on the back of the funnel to the VXI card and the test system is ready to use
- Different connector plates are available to cable out of the InterConnect Adapters

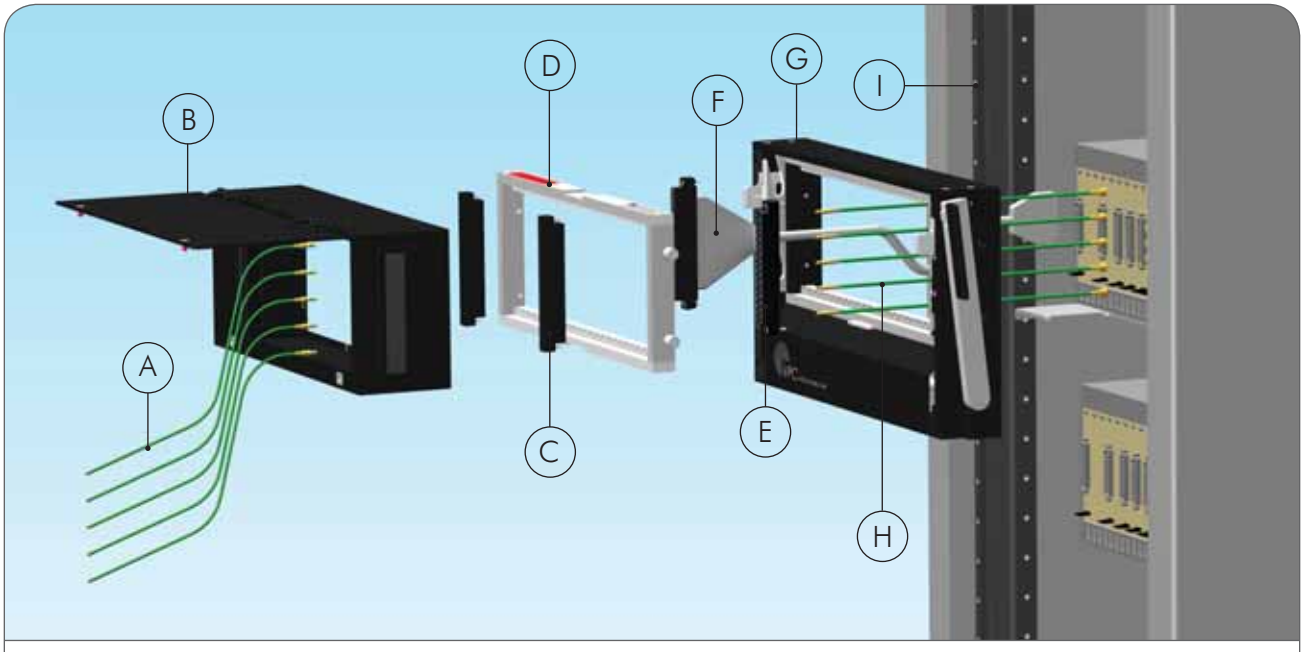
25 Module Solution • 9025

VPC Rack Mountable Receivers meet the exacting standards which are essential to support advanced Mass InterConnect requirements. The 9025 can be adapted to accommodate Vacuum or Mechanical Fixturing. Connector modules can be intermixed to establish custom interfaces which are ideal for functional and system testing applications.

Features and Benefits

- Precision engagement mechanism engineered to mate over 5,900 contacts
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Modular and reconfigurable for evolving tests requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions
- An integrated microswitch that shuts power off when the ITA disengages
- Designed to fit a standard 19" rack
- Rack Mounted 9025 with a Vertical Hinged Mounting Frame and associated accessories offer easy access to cables and test instrumentation

9025 Receiver



A. ITA Patchcords
B. ITA Enclosure
C. ITA Module
D. 9025 ITA
E. Receiver Module
F. Cable Assembly
G. 9025 Receiver
H. Receiver Patchcords
I. Rack With Instruments

Part #	Description
RECEIVER	
310 104 114	Receiver, 9025, 25 Module with Right Handle, Single Tier
310 104 345	Receiver, 9025, 25 Module with Flush Hangers and EMI Gasket, Single Tier
ITA	
410 104 111	ITA, 9025, 25 Module, Single Tier
ENCLOSURES	
410 112 198	Enclosure, 25 Module, Hinged Cover Plate, 4" Deep
410 112 255	Enclosure, 25 Module, no Handles
410 112 309	Enclosure, 25 Module, Large, no Handles
410 112 368	Enclosure, 25 Module, Large
410 112 336	Enclosure, 50 Module, 50 Module 4" Adapter for 25 Module, Hinged Cover
410 112 375	Enclosure, 50 Module, Hinged Cover Plate, 8" Deep
410 112 770	Enclosure, 50 Module VXI, L-Shaped
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
VERTICAL HINGED MOUNTING FRAMES	
310 113 316	Vertical Hinged Mounting Frame, 9025, 8U
310 113 320	Vertical Hinged Mounting Frame, 9025, 9U
ADAPTER PLATE	
410 112 422	Adapter Plate, 9050 Enclosures to 9025 ITA (ITA Positioned on Upper Part of Enclosure)
410 112 772	Adapter Plate, 9050VXI Enclosure to 9025 ITA (ITA Positioned on Upper Part of Enclosure)
410 112 469	Adapter Plate, 9050VXI Enclosure to 9025 ITA (ITA Centered on Enclosure)
PROTECTIVE COVERS	
310 113 163	Protective Cover, 9025, 9025VXI & 9025TR, Receiver
410 112 578	Protective Cover, 9025, 9025VXI & 9025TR, ITA

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

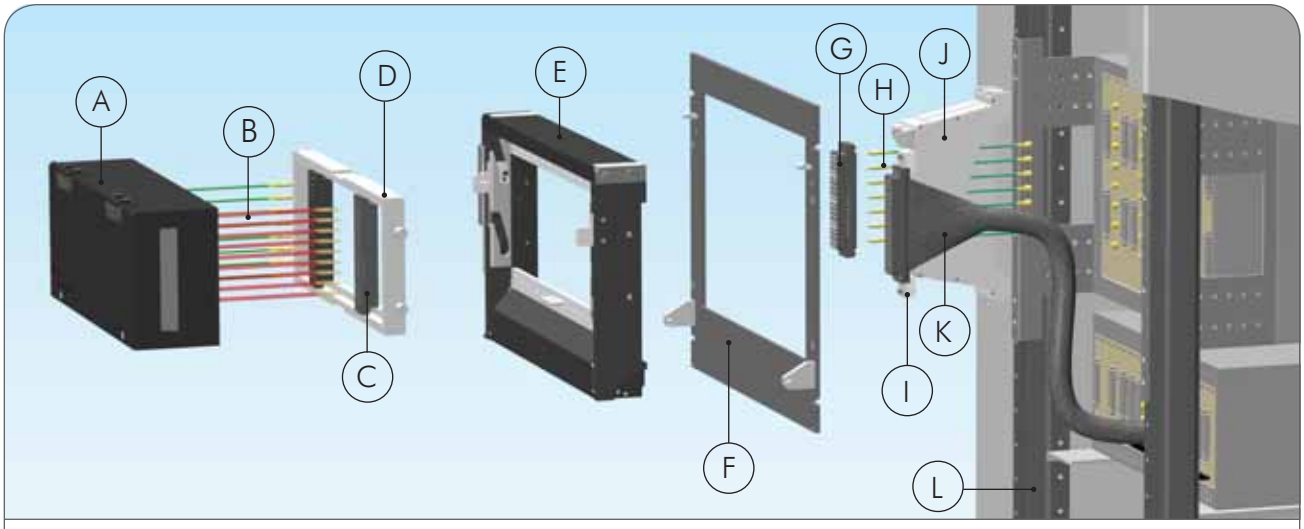
25 Module Solution • 9025 VXI

The VXI Receiver is designed for use with our Pre-Wired InterConnect Adapters, but can also accommodate a combination of Pre-Wired InterConnect Adapters and discrete wired modules using retainer blocks. One to four modules attach to the InterConnect Adapter, (a hollow shell with a removable side for discrete or printed wiring), which in turn is attached to the VXI card. This connector "funnel" forms a complete VXI module, which is easily inserted or removed from the VXI mainframe for maximum flexibility in testing applications. The InterConnect Adapter also provides room for driver sensors or personality electronics. External cabling to the card is accomplished by a cable clamp or connector located on the top or bottom of the InterConnect Adapter.

Features and Benefits

- VXI Receivers incorporate a left-side handle on a telescoping shaft for use with enclosures larger than the ITA
- Precision engineered engagement mechanism
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Modular and reconfigurable for evolving test requirements.
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions
- Designed to fit a standard 19" rack
- An integrated microswitch that shuts power off when the ITA disengages
- VXI Plug and Play Kit allows the VXI Receiver to hinge down offering easy access to interconnect adapters and VXI test instrumentation

9025 VXI Receiver



A. ITA Enclosure
B. ITA Patchcords
C. ITA Module
D. 9025 ITA
E. 9025 VXI Receiver
F. VXI Plug and Play Plate
G. Receiver Module
H. Receiver Patchcords
I. Module Retainer Blocks
J. InterConnect Adapter
K. Cable Assembly
L. Rack with Instruments

Part #	Description

RECEIVER

310 104 127	Receiver, 9025, 25 Module VXI, C-Size Interlocking

NOTE: This Receiver is recommended for use with our Pre-Wired InterConnect Adapters or a combination of InterConnect Adapters and discrete wiring.

ITA

410 104 111	ITA, 9025, 25 Module, Single Tier

ENCLOSURES

410 112 198	Enclosure, 25 Module, Hinged Cover Plate, 4" Deep
410 112 255	Enclosure, 25 Module, no Handles
410 112 309	Enclosure, 25 Module, Large, no Handles
410 112 368	Enclosure, 25 Module, Large
410 112 336	Enclosure, 50 Module, 50 Module 4" Adapter for 25 Module, Hinged Cover
410 112 375	Enclosure, 50 Module, Hinged Cover Plate, 8" Deep
410 112 770	Enclosure, 50 Module VXI, L-Shaped

NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.

PROTECTIVE COVERS

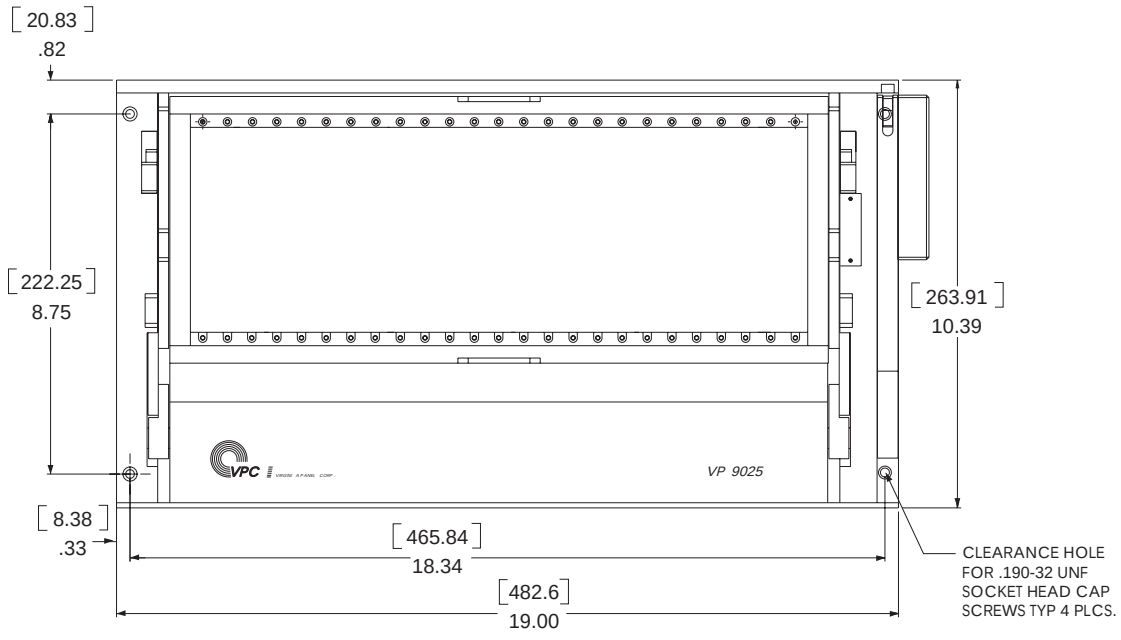
310 113 163	Protective Cover, 9025, 9025VXI & 9025TR, Receiver
410 112 578	Protective Cover, 9025, 9025VXI & 9025TR, ITA

VXI ACCESSORIES (PLEASE SEE VXI ACCESSORIES SECTION FOR MORE INFORMATION)

410 112 422	Adapter Plate, 9050 Enclosures to 9025 ITA (ITA Positioned on Upper Part of Enclosure)
410 112 469	Adapter Plate, 9050VXI Enclosure to 9025 ITA (ITA Centered on Enclosure)
410 112 772	Adapter Plate, 9050VXI Enclosure to 9025 ITA (ITA Positioned on Upper Part of Enclosure)
510 109 117	Module Retainer Block Set For Discrete Wiring 2 Module Positions
510 109 150	Slot 0 Module Retainer Block Set for Discrete Wiring, 1 Module
310 113 248	VXI Plug & Play Adapter Plate for 8U Chassis (alos fits Racal 7U Chassis)
310 113 257	VXI Plug & Play Adapter Plate for 9U Chassis
310 113 272	VXI Plug & Play Adapter Plate for Racal Instruments 9U Chassis
510 109 179	C-Size InterConnect Adapter, Single Slot, 2 Module Positions, Clamp Style
510 109 118	C-Size InterConnect Adapter, Double Slot, 4 Module Positions
510 109 337	C-Size InterConnect Adapter, Double Slot for use with Racal 1260-100 Carrier

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

25 Module Solution • 9025 Receiver



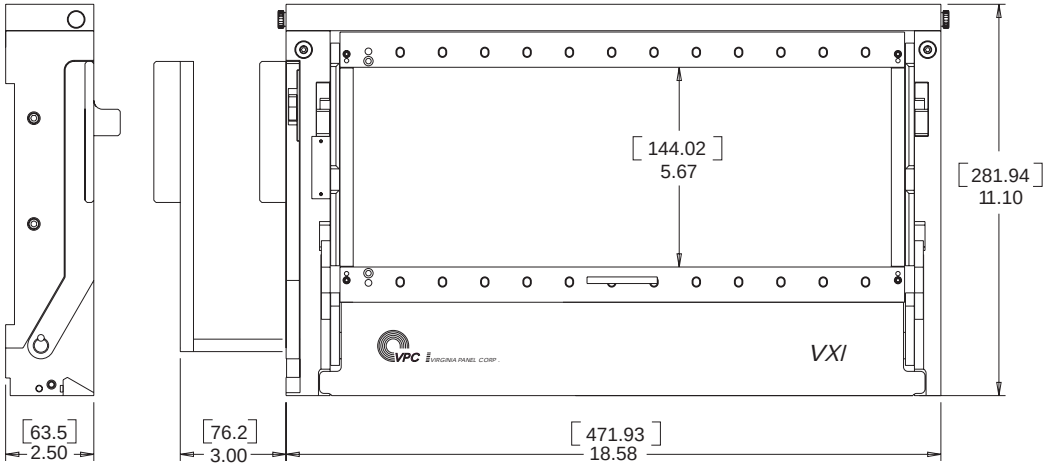
➤ Receiver, 25 Module with Right Handle, Single Tier • **Part # 310 104 114**

Receiver Specifications

Weight	15.6 lbs [7.08 Kg]
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	25 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	80 lbs @ 12" (36 Kg @ 30.5 cm)

The 25 Module Receiver is designed to fit into a standard 19" rack. It is equipped with a locking handle to ensure your contacts are engaged. A standard integrated microswitch shuts off power when the ITA disengages from the Receiver.

25 Module VXI Solution • 9025 VXI Receiver



HANDLE SHOWN IN EXTENDED POSITION

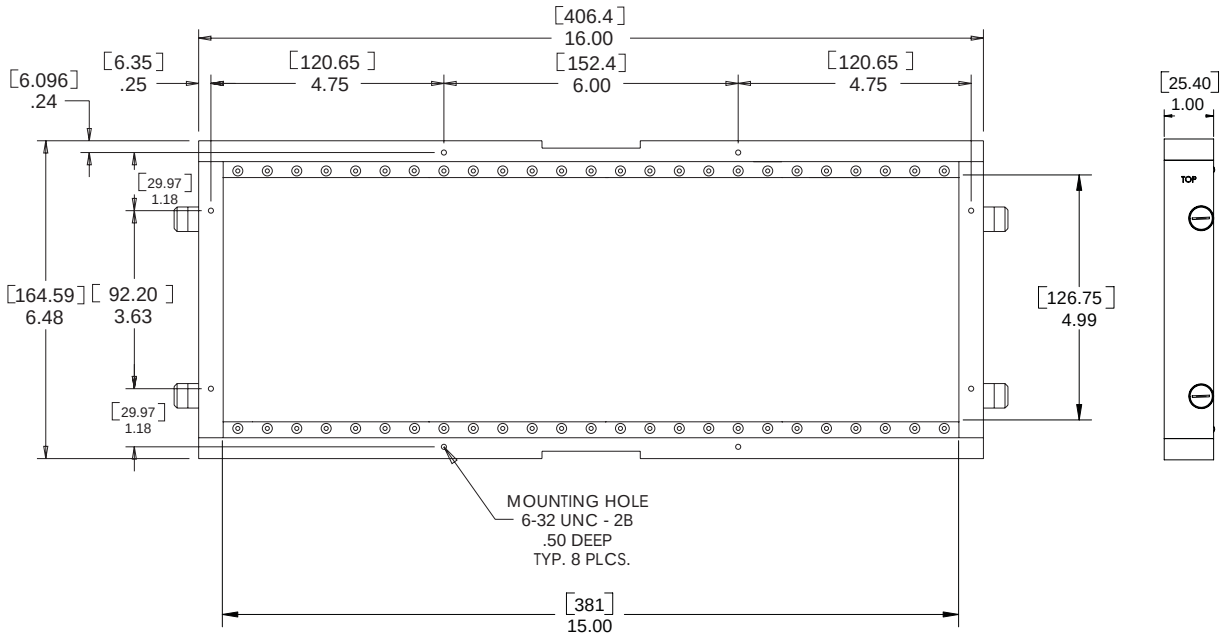
➤ Receiver, 25 Module VXI, C-Size Interlocking • **Part # 310 104 127**

Receiver Specifications

Weight	16.06 lbs [7.29 Kg]
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	25 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	80 lbs @ 12" (36 Kg @ 30.5 cm)

This 25 Module VXI Receiver allows you to use 12 Pre-Wired InterConnect Adapters. It also hinges down for direct access to the Instruments. It is equipped with a locking handle to ensure your contacts are engaged. A standard integrated microswitch shuts off power when the ITA disengages from the Receiver.

25 Module Solution • 9025 ITA



ITA, 25 Module, Single Tier • **Part # 410 104 111**

ITA Specifications

Weight	2.6 lbs [1.09 Kg]
Frame Material	Chromated Aluminum
Available Module Slots	25 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

TECH TIP

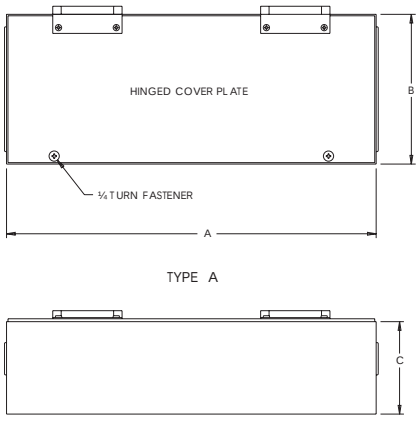
For proper frame loading, please see Tech Tip # 13.

This 25 Module ITA can be used in either the 9025, 9050, 9075 or 25 and 50 VXI Receivers.
The ITA can be used in a number of applications to accomplish the required connection to the Unit Under Test (UUT).

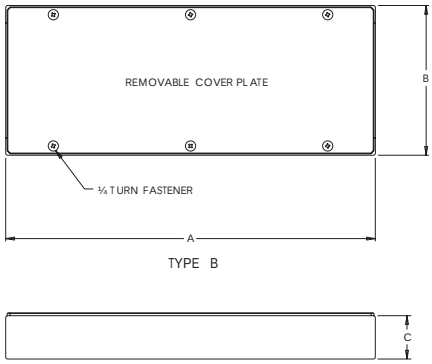
25 Module Solution • 25 and 50 Module Enclosures

Enclosures for 25 and 50 module ITAs are made of aluminum, painted black and secured to the ITA by eight socket head cap screws (included). Two configurations are available. On Type A, the top of the enclosure is a hinged cover plate with ¼ turn hardware that provides easy access to the ITA's wiring when required. On Type B, the cover plate is fastened to the Enclosure by six ¼ turn fasteners.

All cover plates are black anodized. Screws for mounting the Enclosures to the ITA are included. Handles are provided for easy removal of the ITA from the Receiver. VPC can also create special enclosures to meet your needs. Contact Virginia Panel for more information.



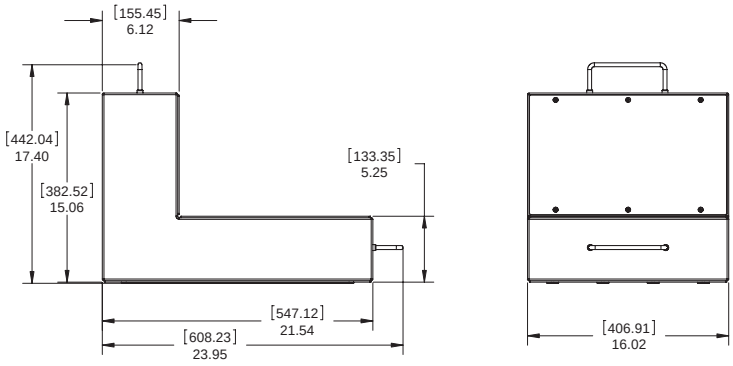
TYPE A



TYPE B

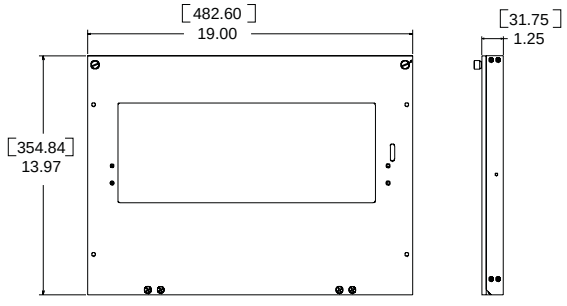
Part #	Description	A	B	C	Type
410 112 198	Enclosure, 25 Module	16.00 [406.4]	6.48 [164.6]	4.00 [101.6]	A
410 112 255	Enclosure, 25 Module, no Handles	16.00 [406.4]	6.48 [164.6]	2.00 [50.8]	B
410 112 309	Enclosure, 25 Module, Large, no Handles	16.00 [406.4]	12.45 [316.2]	2.00 [50.8]	B
410 112 368	Enclosure, 25 Module, Large	16.00 [406.4]	12.45 [316.2]	6.00 [152.4]	B
410 112 336	Enclosure, 50 Module 4" Deep with Adapter Plate for 25 Module	16.00 [406.4]	12.45 [316.2]	4.00 [101.6]	A
410 112 375	Enclosure, 50 Module, 8" Deep	16.00 [406.4]	12.45 [316.2]	8.00 [203.2]	A

NOTE: 50 Module Enclosures require Adapter Plate Part # 410 112 422 to mount to the 25 Module ITA.



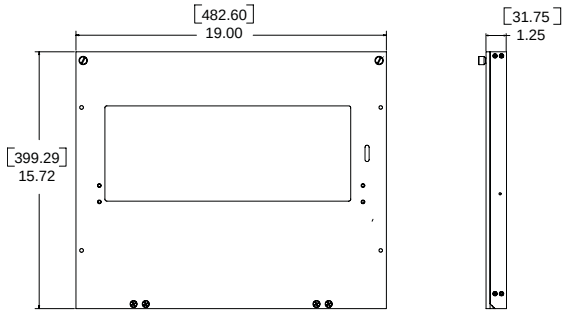
The L-Shaped Enclosure provides significant area for external I/O devices. It features three access panels (front, top and bottom) with removable covers that use ¼ turn fasteners. The housing is painted black and the access panel covers are black anodized. This enclosure is designed for a 9050VXI ITA, and with the use of adapter plates, can be used with 9050 and 9025 ITAs.

➤ Enclosure, 50 Module VXI, L-Shaped • **Part # 410 112 770**



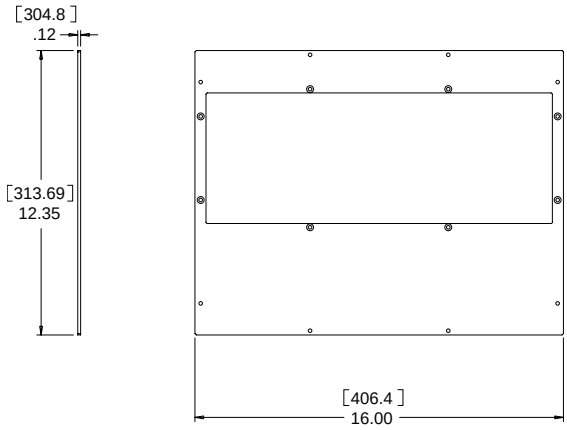
This Vertical Hinged Mounting Frame allows the 9025 Receiver to hinge down allowing access to instrumentation and wiring. This frame is 8U in height.

➤ Vertical Hinged Mounting Frame, 9025, 8U • **Part # 310 113 316**



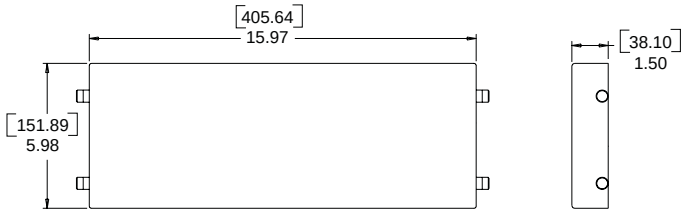
This Vertical Hinged Mounting Frame allows the 9025 Receiver to hinge down allowing access to instrumentation and wiring. This frame is 9U in height.

➤ Vertical Hinged Mounting Frame, 9025, 9U • **Part # 310 113 320**



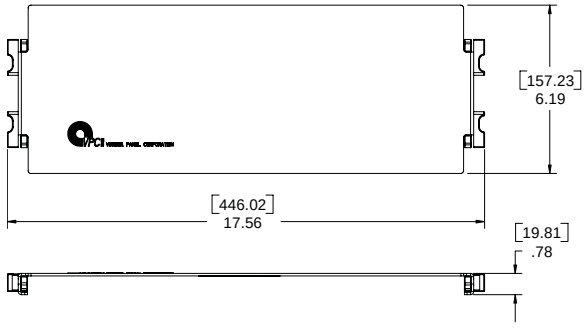
This Adapter Plate allows a 25 Module ITA to accept standard 50 Module Enclosures.

➤ Adapter Plate, 9050 Enclosures to 9025 ITA (ITA Positioned on Upper Part of Enclosure) • **Part # 410 112 422**



The Receiver Protective Cover is optional to protect your modules and contacts when the ITA is not engaged. The Protective Cover is made up of anodized aluminum.

➤ Protective Cover, 9025, 9025VXI & 9025TR, Receiver • **Part # 310 113**



The ITA Protective Cover is made up of aluminum making it more durable and shock resistant to protect your contacts and modules when the ITA is not in use.

➤ Protective Cover, 9025, 9025VXI & 9025TR, ITA • **Part # 410 112 578**

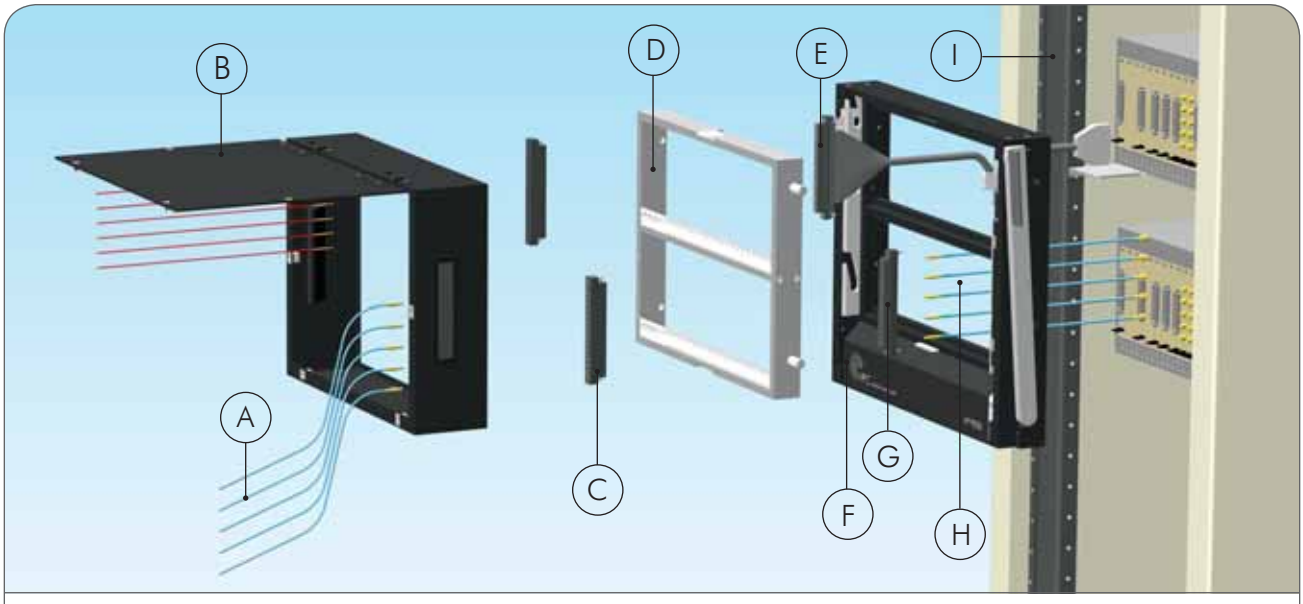
50 Module Solution • 9050

The rack mountable 9050 Receiver is designed to accept the 9025 and 9050 ITAs and is essential to support advanced Mass InterConnect requirements. The 50 Module Solution can be adapted to accommodate Vacuum or Mechanical Fixturing. Connector modules can also be intermixed to establish custom interfaces which are ideal for functional and system testing applications.

Features and Benefits

- Precision engineered engagement mechanism
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Modular and reconfigurable for evolving test requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions
- Designed to fit a standard 19" rack
- An integrated microswitch that shuts power off when the ITA disengages
- Rack Mounted 9050 with a Vertical Hinged Mounting Frame and associated accessories offers easy access to cables and test instrumentation

9050 Receiver



A. ITA Patchcords
B. ITA Enclosure
C. ITA Module
D. 9050 ITA
E. Cable Assembly
F. 9050 Module Receiver
G. Receiver Module
H. Receiver Patchcords
I. Rack With Instruments

Part #	Description
RECEIVER	
310 104 115	Receiver, 9050, 50 Module Double Tier
ITAS	
410 104 110	ITA, 9050, 50 Module, Double Tier
410 104 111	ITA, 9025, 25 Module, Single Tier
ENCLOSURES	
410 112 198	Enclosure, 25 Module, Hinged Cover Plate, 4" Deep
410 112 255	Enclosure, 25 Module, No Handles
410 112 309	Enclosure, 25 Module, Large, No Handles
410 112 368	Enclosure, 25 Module, Large
410 112 199	Enclosure, 50 Module, Hinged Cover Plate, 4" Deep
410 112 336	Enclosure, 50 Module, 50 Module 4" Adapter for 25 Module, Hinged Cover
410 112 375	Enclosure, 50 Module, Hinged Cover Plate, 8" Deep
410 112 770	Enclosure, 50 Module VXI, L-Shaped
VERTICAL HINGED MOUNTING FRAME	
310 113 184	Vertical Hinged Mounting Frame, 9050, 10U
PROTECTIVE COVERS	
310 113 151	Protective Cover, 9050, Receiver
410 112 579	Protective Cover, 9050, ITA
410 112 578	Protective Cover, 9025, 9025VXI & 9025TR, ITA

NOTE: The 25 Module Enclosures only work with the 25 Module ITA
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

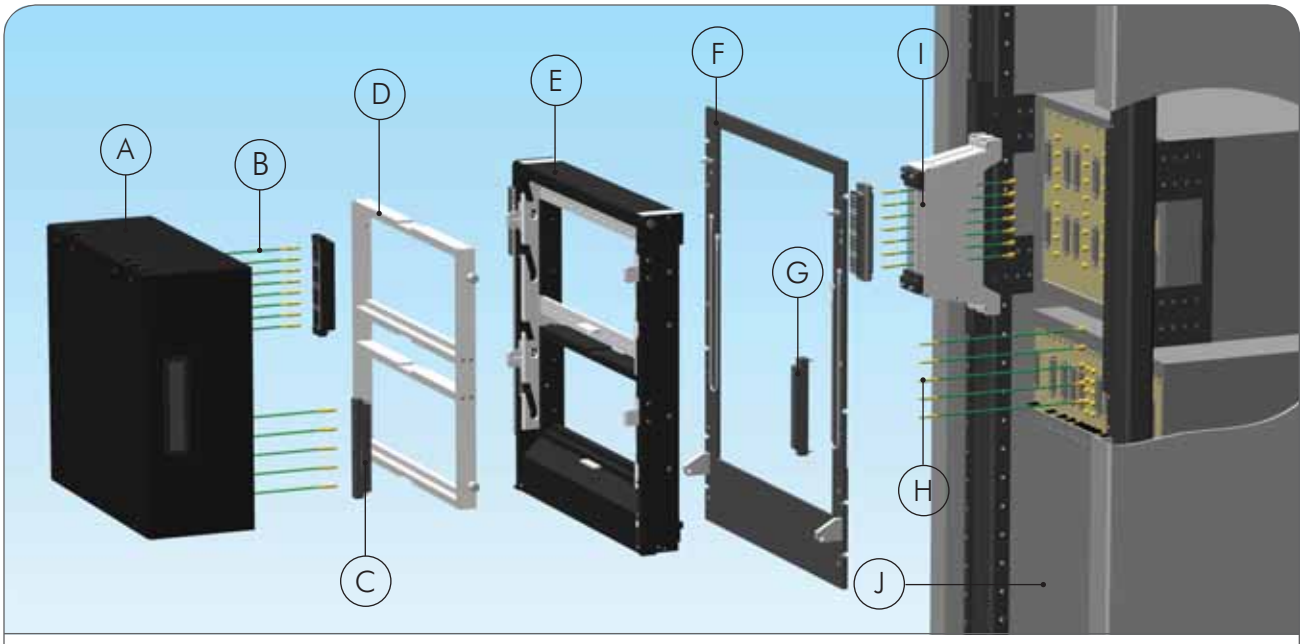
50 Module Solution • 9050 VXI and Discrete Wiring

The VXI Receiver is designed for use with our Pre-Wired InterConnect Adapters on the top tier and discrete wiring modules on the bottom tier. The receiver hinges down to give the user access to the instruments in the rack. A microswitch, which comes standard, allows you to shut off any power going through the system before removing the ITA. Using a Plug and Play Plate or a flange kit for your rack makes it easy to mount the Receiver to any 19" Rack system.

Features and Benefits

- VXI Receivers incorporate a left-side handle on a telescoping shaft for use with enclosures larger than the ITA
- Precision engineered engagement mechanism
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Modular and reconfigurable for evolving test requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions
- Designed to fit a standard 19" rack
- An integrated microswitch that shuts power off when the ITA disengages
- VXI Plug and Play Kit allows the VXI Receiver to hinge down offering easy access to interconnect adapters and VXI test instrumentation

9050 VXI Receiver

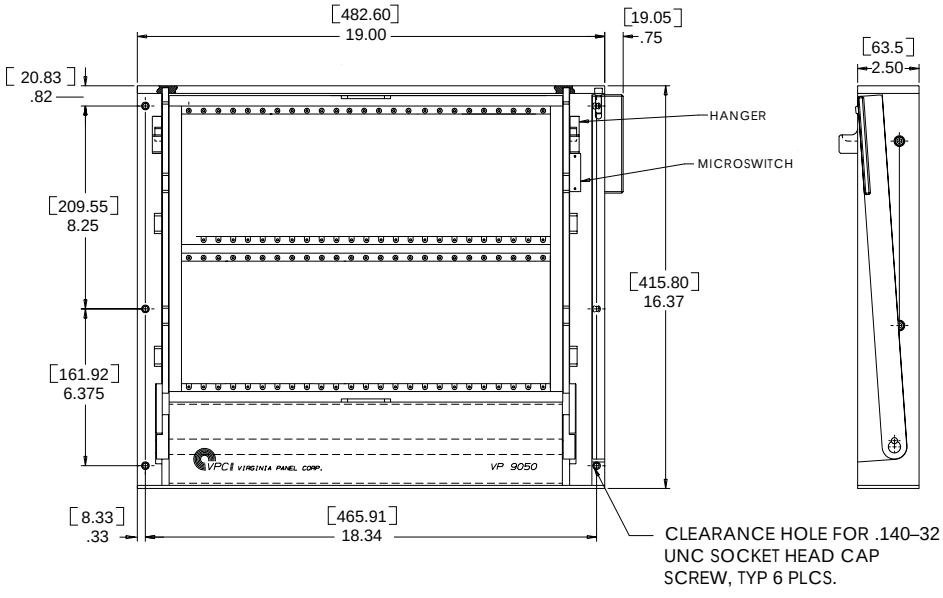


A. ITA Enclosure
B. ITA Patchcords
C. ITA Module
D. 9050 VXI ITA
E. 9050 VXI Receiver
F. VXI Plug and Play Plate
G. Receiver Module
H. Receiver Patchcords
I. InterConnect Adapter
J. Rack with Instruments

Part #	Description
RECEIVER	
310 104 248	Receiver, 9050, 50 Module, VXI and Discrete Wiring, Double Tier
310 104 368	Receiver, 9050, 50 Module, Dual Discrete Wiring Tiers
ITAS	
410 104 181	ITA, 50 Module, VXI and Discrete Wiring, Double Tier
410 104 111	ITA, 9025, 25 Module, Single Tier (used on top or bottom tier on Part # 310 104 248)
ENCLOSURES	
410 112 463	Enclosure, 50 Module VXI, Hinged Cover Plate, 6" Deep
410 112 770	Enclosure, 50 Module VXI, L-Shaped
NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.	
PROTECTIVE COVERS	
310 113 285	Protective Cover, 9050VXI, Receiver
410 112 582	Protective Cover, 9050VXI, ITA
410 112 578	Protective Cover, 9025, 9025VXI & 9025TR, ITA
VXI ACCESSORIES (PLEASE SEE VXI ACCESSORIES SECTION FOR MORE INFORMATION)	
310 113 299	Adapter Kit for Agilent Technologies C- Size VXI E8400 used with Double Tier Receiver
310 113 303	Adapter Kit for Tektronix VX1410A, VX1401A and VX1420A used with Double Tier Receiver
310 113 364	VXI Plug and Play Plate, 14U (for Part # 310 104 248)
510 109 117	Module Retainer Block Set For Discrete Wiring 2 Module Positions
510 109 150	Slot 0 Module Retainer Block Set for Discrete Wiring, 1 Module
510 109 179	C-Size InterConnect Adapter, Single Slot, 2 Module Positions, Clamp Style
510 109 118	C-Size InterConnect Adapter, Double Slot, 4 Module Positions
510 109 337	C-Size InterConnect Adapter, Double Slot for use with Racal 1260-100 Carrier

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

50 Module Solution • 9050 Receiver



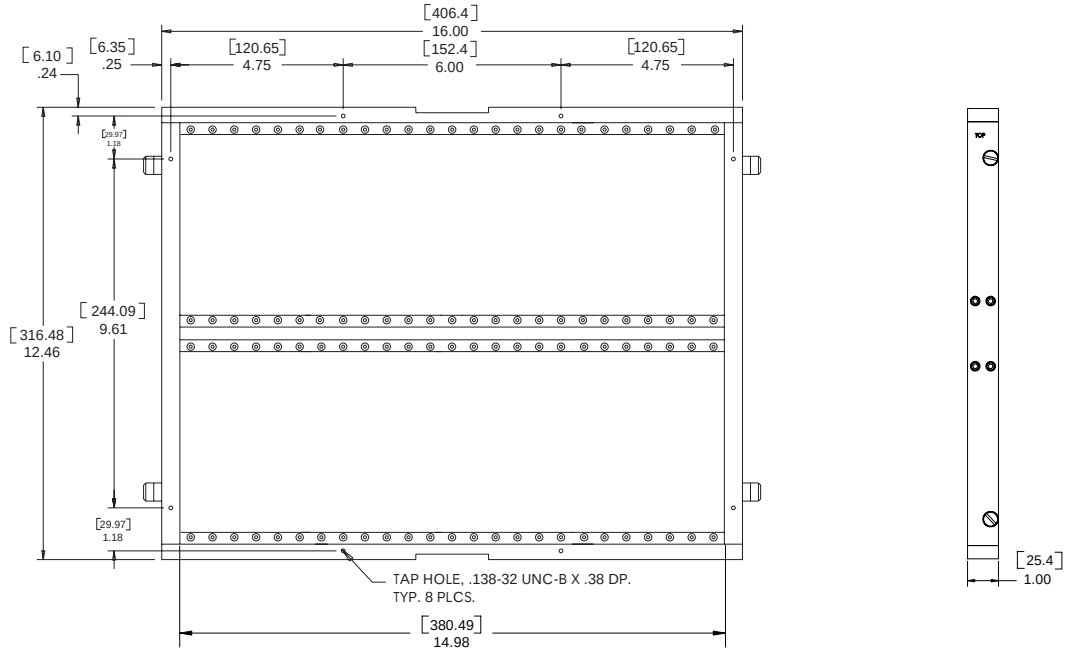
➤ Receiver, 9050, 50 Module Double Tier • **Part # 310 104 115**

Receiver Specifications

Weight	25 lbs [7.08 Kg]
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	50 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	80 lbs @ 12" (36 Kg @ 30.5 cm)

The 50 Module Receiver is a rugged system designed to accommodate high I/O. With high contact point availability, the 50 Module Receiver is suited for larger test and measurement systems.

50 Module Solution • 9050 ITA



ITA, 9050, 50 Module, Double Tier • **Part # 410 104 110**

ITA Specifications

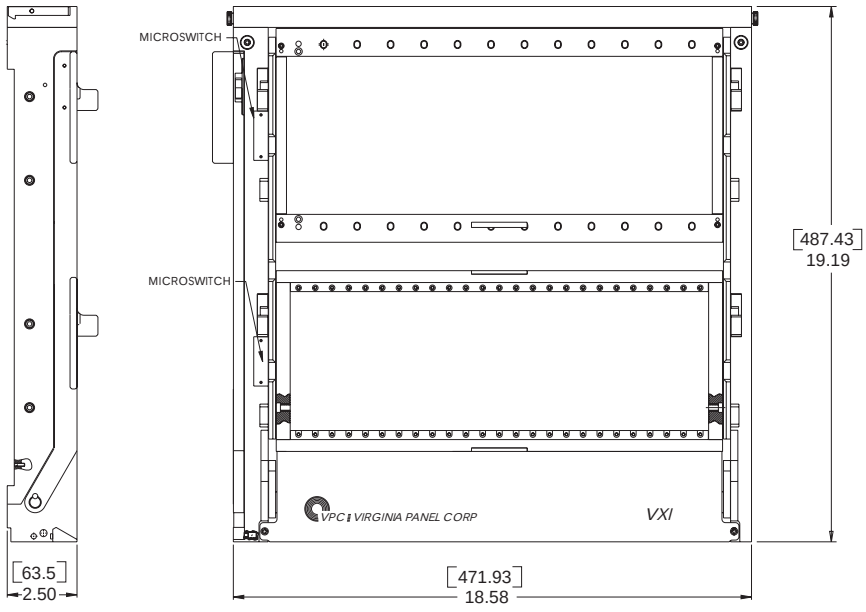
Weight	4.0 lbs [1.81 Kg]
Frame Material	Chromated Aluminum
Available Module Slots	50 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

TECH TIP

For proper frame loading, please see Tech Tip # 13.

The 50 Module ITA can be used in a number of applications to accomplish the required connection to the Unit Under Test (UUT). You can mount a VPC Enclosure or customize your own fixture to be attached on the frame. A wide range of ITA modules are available separately for user configuration.

50 Module Solution • 9050 VXI Receiver



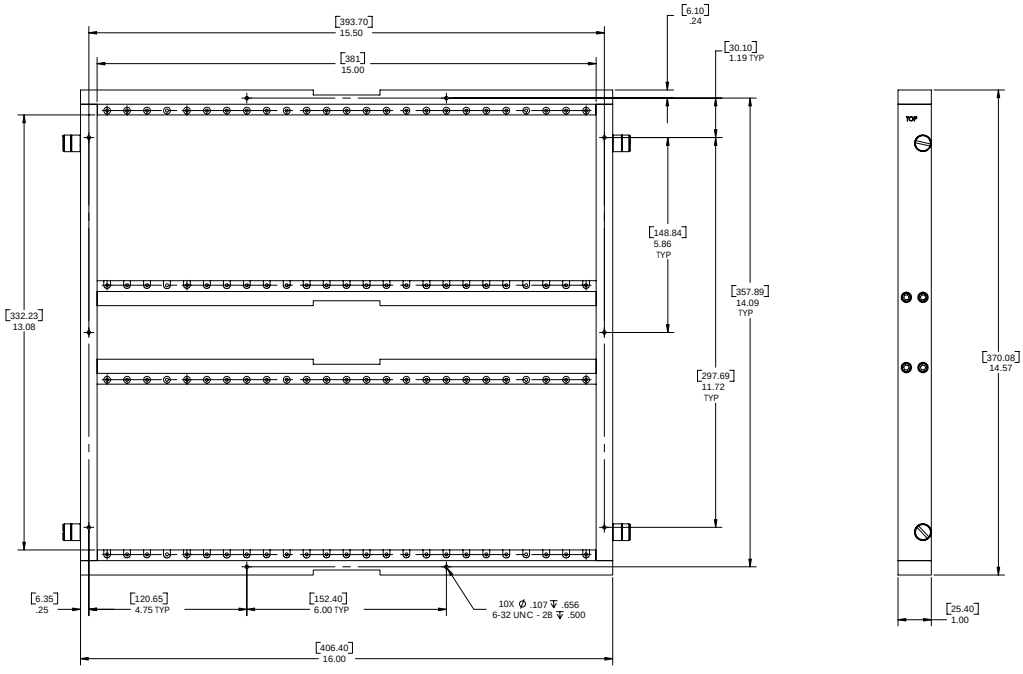
Receiver, 9050, 50 Module, VXI and Discrete Wiring, Double Tier • **Part # 310 104 248**

Receiver Specifications

Weight	25 lbs [7.08 Kg]
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	50 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	80 lbs @ 12" (36 Kg @ 30.5 cm)

The 50 Module Receiver is a rugged system devised to accommodate high I/O. With high contact point availability, the 50 Module Receiver is suited for larger test and measurement systems. The top tier accomodates VXI instruments and accepts our InterConnect adapters and the bottom tier is for discrete wiring. A rack-mountable, dual discrete-wired two tier 9050 is also available (P/N 310 104 368) and mates with ITA P/N 410 104 181.

50 Module Solution • 9050 VXI ITA



➤ ITA, 9050, 50 Module, VXI and Discrete Wiring, Double Tier • **Part # 410 104 181**

ITA Specifications

Weight	2.1 lbs [.95 Kg]
Frame Material	Chromated Aluminum
Available Module Slots	50 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

TECH TIP

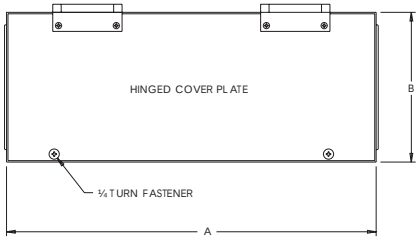
For proper frame loading, please see Tech Tip #13.

The 50 Module ITA can be used in a number of applications to accomplish the required connection to the Unit Under Test (UUT). You can mount a VPC Enclosure or customize your own fixture to be attached on the frame. A wide range of ITA modules are available separately for user configuration.

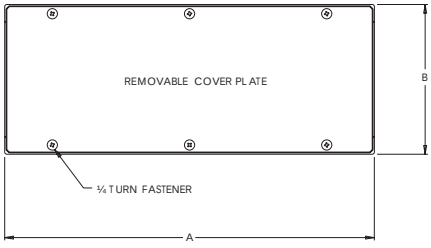
50 Module Solution • 25 and 50 Module Enclosures

Enclosures for 25 and 50 module ITAs are made of aluminum, painted black and secured to the ITA by eight socket head cap screws (included). Two configurations are available. On type A, the top of the enclosure is a hinged cover plate with ¼ turn hardware that provides easy access to the ITA's wiring when required. On type B, the cover plate is fastened to the enclosure by six ¼ turn fasteners.

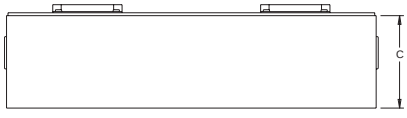
All cover plates are black anodized. Screws for mounting the Enclosures to the ITA are included. Handles are provided for easy removal of the TPS hardware from the Receiver, except where noted.

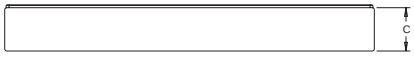


TYPE A



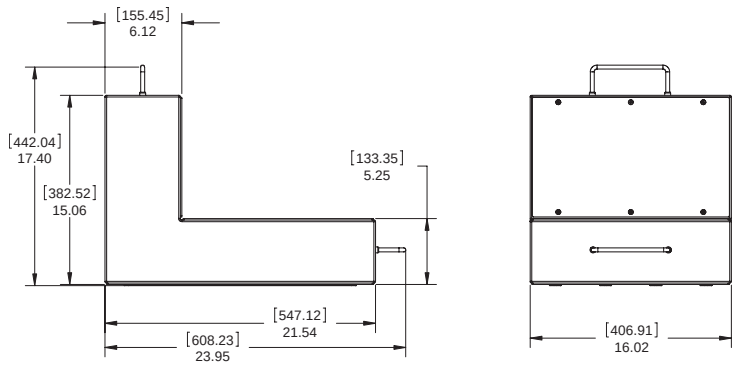
TYPE B





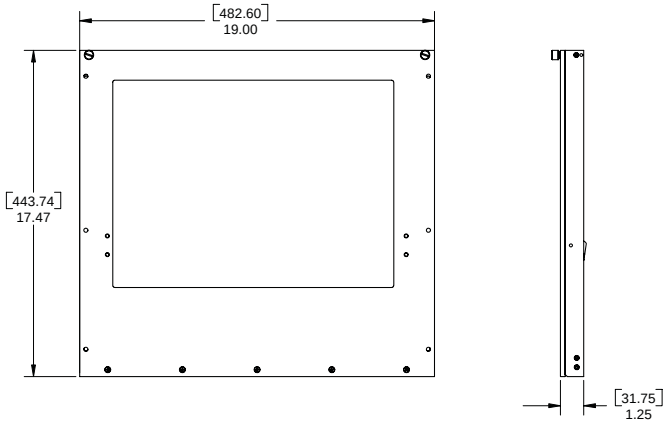
Part #	Description	A	B	C	Type
410 112 198	Enclosure, 25 Module	16.00 [406.4]	6.48 [164.6]	4.00 [101.6]	A
410 112 255	Enclosure, 25 Module, no Handles	16.00 [406.4]	6.48 [164.6]	2.00 [50.8]	B
410 112 309	Enclosure, 25 Module, Large, no Handles	16.00 [406.4]	12.45 [316.2]	2.00 [50.8]	B
410 112 368	Enclosure, 25 Module, Large	16.00 [406.4]	12.45 [316.2]	6.00 [152.4]	B
410 112 199	Enclosure, 50 Module, 4" Deep	16.00 [406.4]	12.45 [316.2]	4.00 [101.6]	A
410 112 336	Enclosure, 50 Module 4" Deep with Adapter Plate for 25 Module	16.00 [406.4]	12.45 [316.2]	4.00 [101.6]	A
410 112 375	Enclosure, 50 Module, 8" Deep	16.00 [406.4]	12.45 [316.2]	8.00 [203.2]	A
410 112 463	Enclosure, 50 Module, VXI and Discrete Wiring	16.00 [406.4]	14.57 [370.1]	6.00 [152.4]	A

NOTE: Standard 50 Module enclosures require Adapter Plate Part # 410 112 422 to mount to the 25 Module ITA.



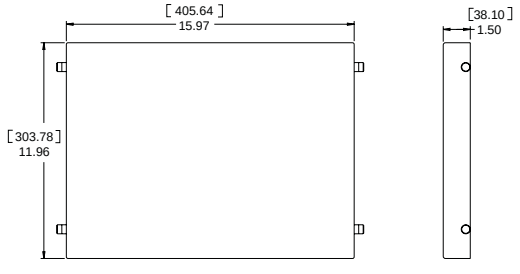
The L-Shaped Enclosure provides significant area for external I/O devices. It features three access panels (front, top and bottom) with removable covers that use ¼ turn fasteners. The housing is painted black and the access panel covers are black anodized. This enclosure is designed for a 9050VXI ITA, and with the use of adapter plates, can be used with 9050 and 9025 ITAs.

➤ Enclosure, 50 Module VXI, L-Shaped • **Part # 410 112 770**



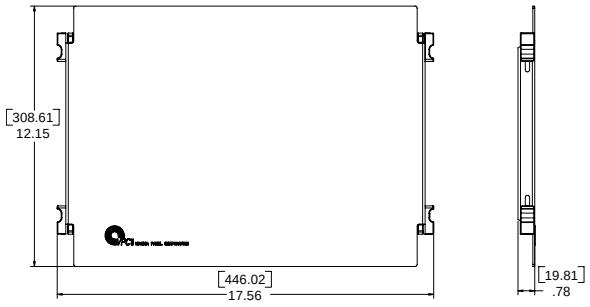
This frame bolts directly onto the 19" rack and allows the Receiver to be hinged down toward the operator for access to wiring.

➤ Vertical Hinged Mounting Frame, 9050, 10U • **Part # 310 113 184**



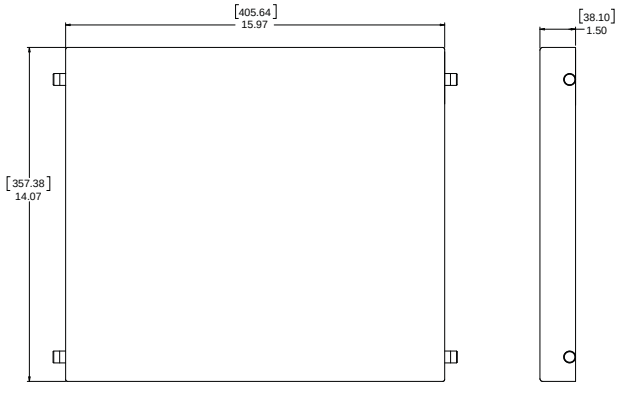
When the ITA is not engaged, the Protective Cover is used to protect the modules and contacts. The Protective Cover is black anodized aluminum.

➤ 310113151 Protective Cover, 9050, Receiver • **Part # 310 113 151 for Part # 310 104 115**



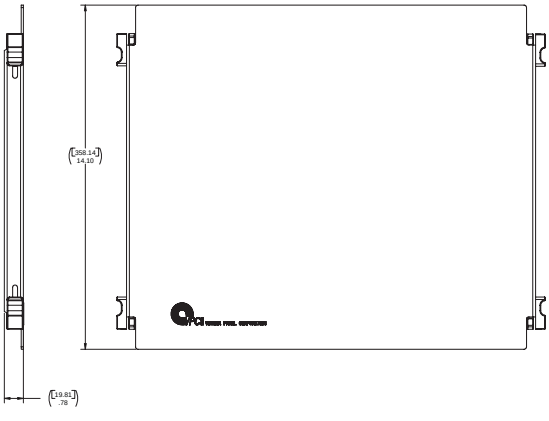
When storing the ITA, the cover snaps on to protect the modules and contacts. The body of the cover is clear chromated aluminum and the mounting blocks are made of Delrin.

➤ Protective Cover, 9050, Receiver • **Part # 410 112 579 for Part # 410 104 110**



When the Receiver is not in use, the Protective Cover is used to protect the modules and contacts. The Protective Cover is made up of black anodized aluminum.

➤ Protective Cover, 9050VXI, Receiver • **Part # 310 113 285 for Part # 310 104 248/368**



The aluminum ITA Protective Cover is more durable and shock resistant to protect your contacts and modules when the ITA is not in use.

➤ Protective Cover, 9050VXI, ITA • **Part # 410 112 582 for Part # 410 104 111**

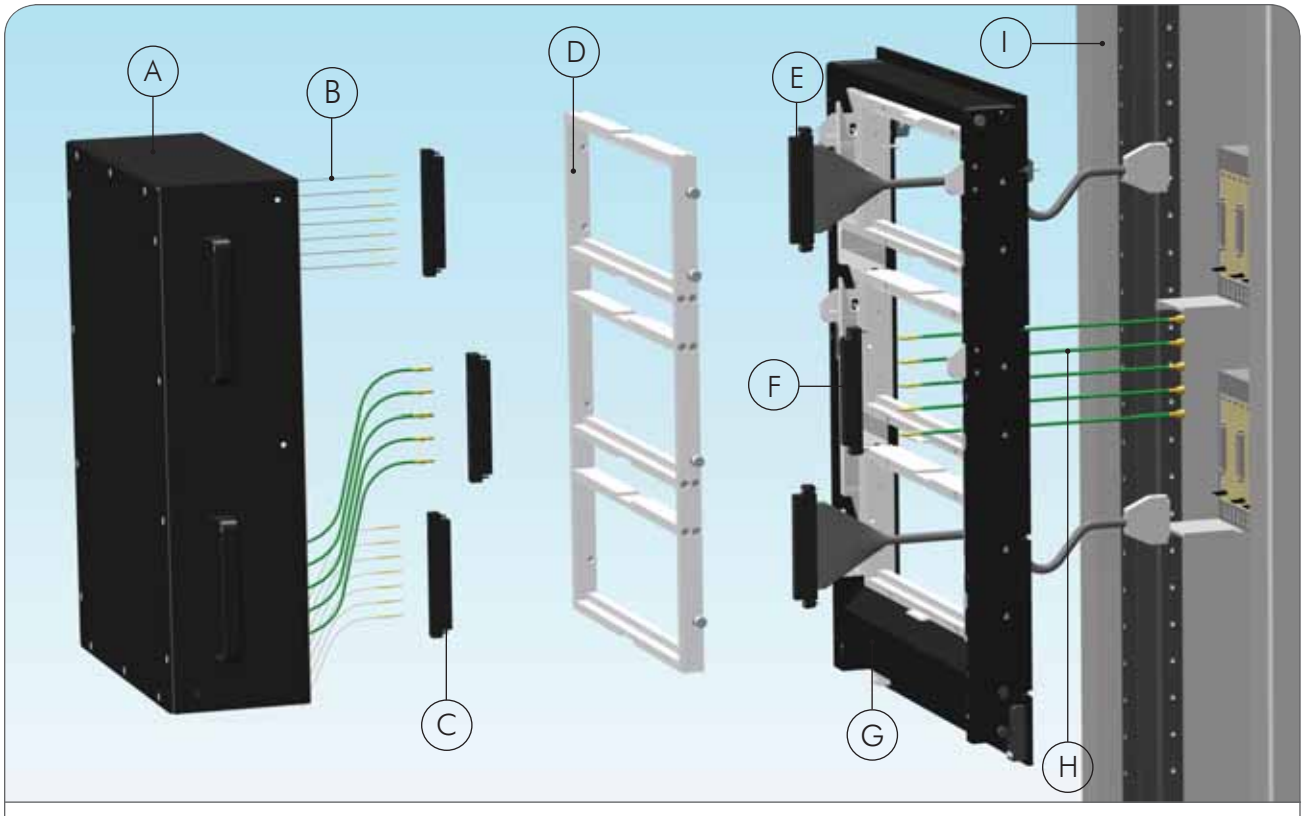
75 Module Solution • 9075

VPC Rack Mountable Receivers meet the exacting standards which are essential to support advanced Mass InterConnect requirements. 9075 Receiver is designed to accept the 9025, 9050, and 9075 ITAs and can be adapted to accommodate Vacuum or Mechanical Fixturing. Connector modules can be intermixed to establish custom interfaces which are ideal for functional and system testing applications.

Features and Benefits

- Precision engineered engagement mechanism
- Standard ITA frames accommodate multiple enclosure types for a variety of fixture options
- Modular and reconfigurable for evolving tests requirements
- Reliable connectivity beyond 20,000 cycles
- Quick and easy integration and maintenance
- Wide range of I/O options including signal, coax/RF, power, pneumatic, vacuum, thermocouple, fiber optic and PCB solutions
- Designed to fit a standard 19" rack
- An integrated microswitch that shuts power off when the ITA disengages
- Rack Mounted 9075 Receiver hinges down to offer easy access to cables and test instrumentation
- 9075 receiver accepts a full 75 module ITA or one 9025 ITA or one 9050 ITA

9075 Receiver



A ITA Enclosure
B. ITA Patchcords
C. ITA Module
D. 9075 ITA
E. Cable Assembly
F. Receiver Module
G. 75 Module Receiver
H. Receiver Patchcords
I. Rack with Instruments

Part #	Description

RECEIVER

310 104 307	Receiver, 9075, 75 Module, Triple Tier

ITA

410 104 258	ITA, 9075, 75 Module, Triple Tier

ENCLOSURE

410 112 561	Enclosure, 75 Module, 6" Deep

NOTE: If you do not see an enclosure that meets your needs, please contact VPC for a quote on a custom enclosure.

PROTECTIVE COVERS

310 113 352	Protective Cover, Receiver, 75 Module
410 112 573	Protective Cover, ITA, 75 Module

NOTES

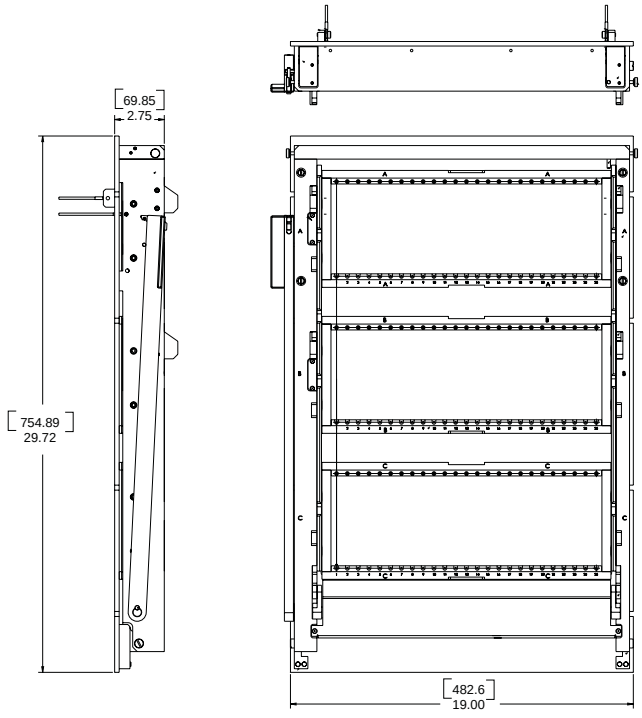
The 310 104 307 receiver is for discrete wiring. The receiver also hinges down at the bottom.

The 310 104 307 will accept 3 different ITAs depending on the application.

1. Part # 410 104 258 is the 3 tier ITA.
2. Part # 410 104 111 is the single tier ITA. This works in either the top tier marked "A" or the center tier marked "B."
3. Part # 410 104 181 is the 2 tier ITA. This works in the tiers "A and B" only. It will not work in the bottom tier marked "B and C."

** For Cable Assemblies, Mating Modules, Patchcords - Visit VPC's Configurators at vpc.com/wire*

75 Module Solution • 9075 Receiver



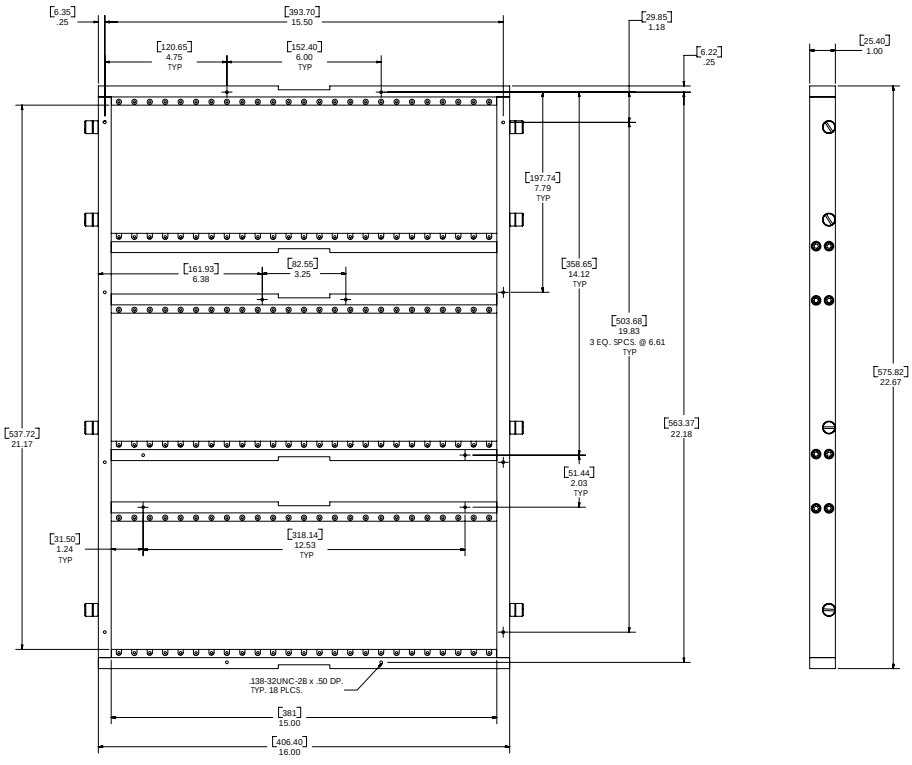
➤ Receiver, 9075, 75 Module, Triple Tier • **Part # 310 104 307**

Receiver Specifications

Weight	43 lbs [19.5 Kg]
Frame Material	Anodized Aluminum
Slide Material	Nickel Plated Steel
Linkage, Handle, Latch	Stainless Steel
Available Module Slots	75 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C
Maximum Weight Support	80 lbs @ 12" (36 Kg @ 30.5 cm)

The 75 Module Receiver has the highest I/O availability. All three tiers accommodate discrete wiring for any application. This Receiver also accepts the standard 9025, 9050 and 9075 ITAs.

75 Module Solution • 9075 ITA



ITA, 9075, 75 Module, Triple Tier • **Part # 410 104 258**

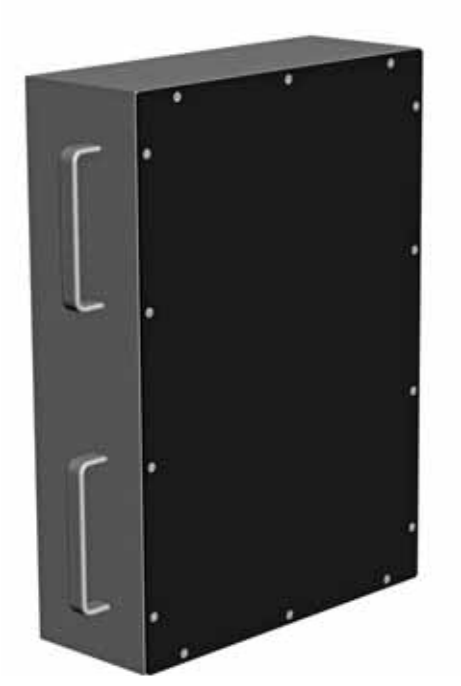
ITA Specifications

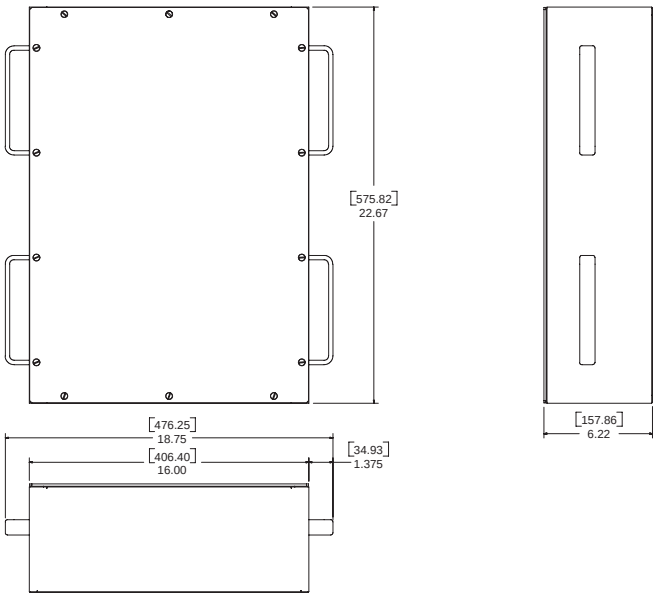
Weight	20.85 lbs [9.46 Kg]
Frame Material	Nickel Plated Steel
Available Module Slots	75 Positions
Cycle Life	20,000 Cycles
Temperature	–55° C to 85° C

TECH TIP

For proper frame loading, please see Tech Tip # 13.

The 75 Module, triple tier ITA is rugged and perfect for high I/O test and measurement applications. This ITA is made of steel to prevent any deflection caused by the high insertion forces from the available I/O. The added tapped holes on the back of the frame allow you to attach an enclosure or custom fixture.





The 6" deep 75 Module enclosure has four handles to help place the ITA on the Receiver. The cover of the enclosure is secured by 14 ¼ turn fasteners to allow wiring access.

➤ Enclosure, 75 Module, 6" Deep • **Part # 410 112 561**

The aluminum ITA Protective Cover is available to protect your contacts and modules when your ITA is not in use.

➤ Protective Cover, ITA, 75 Module
Part # 410 112 573

The Receiver Protective Cover is available and encloses your modules and contacts when the ITA is not engaged.

➤ Protective Cover, Receiver, 75 Module
Part # 310 113 352

VXI Plug and Play Adapter Plates and Flange Kits

VXI Receivers must be mounted to the VXI Instrument Chassis. There are two methods to accomplish this. The first method is to take advantage of the VXI Plug and Play Standard (www.vxipnp.org) that was established to ensure interoperability between multiple vendors in both Software and Hardware. If the chassis meets the Plug and Play standard, and you are planning to use the 9025 VXI Receiver, Part # 310 104 127, then the user should purchase the Receiver Mounting Flanges as an accessory from the chassis manufacturer. These, used in combination with a VPC Plug and Play plate will allow the user to mount the 9025 VXI Receiver to the chassis without any special tools or alignment requirements. VPC offers 3 Plug and Play Plates to choose from depending on the U height (1 U = 1.75 inches) of the chassis.

If you are planning to use the 9050 VXI Receiver, Part # 310 104 248, then the second method must be employed. This involves using flanges manufactured by VPC in order to mount the larger 9050 VXI Receiver to the VXI chassis. In this case, the flanges must be selected to match the particular chassis that is being used, and they must be aligned to the receiver and chassis during assembly. In order to accomplish the alignment required, the user can use 2 VPC Pre-wired InterConnect Adapters. If using the Pre-wired InterConnect Adapters, it should be noted that you must be mounting to a VXI Instrument in order to achieve proper alignment (visit vpc.com for User's Guide instructions).

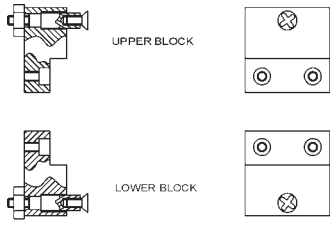
Part #	Description
310 113 299	Adapter Kit for Agilient Technologies C- Size VXI E8400 used with Part # 310 104 248 Double Tier Receiver
310 113 303	Adapter Kit for Tektronix VX1410A, VX1401A and VX1420A used with Part # 310 104 248 Double Tier Receiver

NOTE: Plug and Play Flanges for the following must be purchased from the chassis manufacturer.

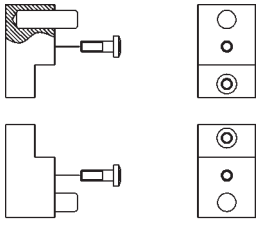
310 113 248	VXI Plug and Play Adapter Plate for 8U Chassis (will also fit Racal Instruments 7U chassis)
310 113 257	VXI Plug and Play Adapter Plate for 9U Chassis
310 113 272	VXI Plug and Play Adapter Plate for Racal Instruments 9U Chassis

VXI Discrete Wiring Module Retainer Blocks

Module Retainer Blocks are used to attach modules directly to the inner frame of the VXI Receiver for discrete wiring. These modules then hinge down with the receiver, providing easy access to the wiring.



Part # 510 109 117



Part # 510 109 150

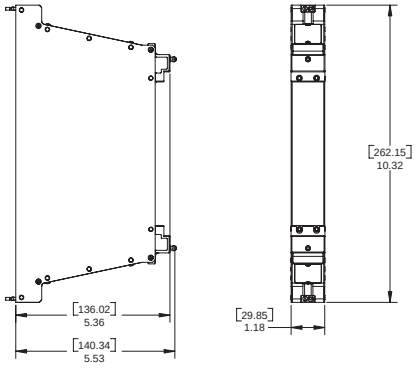
Part #	Description
510 109 117	Module Retainer Block Set For Discrete Wiring 2 Module Positions
510 109 150	Slot 0 Module Retainer Block Set For Discrete Wiring 1 Module

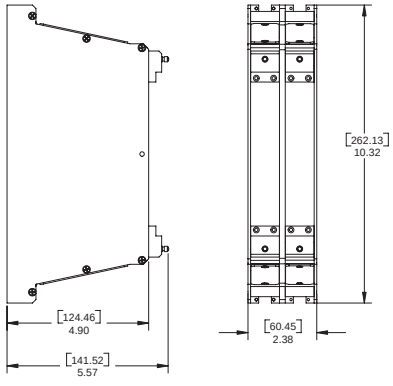
InterConnect Adapter For VXI Cards

InterConnect Adapters are available to funnel the wiring to a VXI chassis. Connector cover plates are optional replacements to the standard cover plates and allow wiring to enter or exit the funnel through different VXI instruments or receiver modules.

TECH TIP

Please see Tech Tips #8 and 9 for more information on the Mounting Ear Kits.





Part # 510 109 179 | **Part # 510 109 118**

Part #	Description
510 109 179	C-Size InterConnect Adapter, Single Slot, 2 Module Positions, Clamp Style
510 109 454	C-Size InterConnect Adapter, Single Slot, 2 Module Positions, Clamp Style with VXI Keying
510 109 118	C-Size InterConnect Adapter, Double Slot, 4 Module Positions
510 109 197	InterConnect Adapter for A or B to C Carrier (uses VME to VXI Adapter)
510 109 354	VXI Technology Mounting Ear Kit for SMP 1200 Carrier (for use with Part # 510 109 118)
510 109 355	VXI Technology Mounting Ear Kit for SMP 1100 Carrier (for use with Part # 510 109 202)
510 109 202	C-Size InterConnect Adapter, Single Slot (for use with Part # 510 109 355)
510 109 337	C-Size InterConnect Adapter, Double Slot for use with Racal 1260-100 Carrier
510 109 128	Connector Cover Plate for 25 Pin, D-Shell (for Part # 510 109 118)
510 109 129	Connector Cover Plate for 50 Pin, SCSI (for Part # 510 109 118)
510 109 138	Connector Cover Plate for 50 Pin, D-Shell (for Part # 510 109 118)
510 109 139	Cable Clamp Option (Replaces Blank Cover Plate when Cabling into Adapter) (for Part # 510 109 118)
510 109 142	Connector Cover Plate for 9 Pin, D-Shell (for Part # 510 109 118)
510 109 149	Connector Cover Plate for 15 Pin, D-Shell (for Part # 510 109 118)
510 109 331	Cable Clamp Option (Replaces Blank Cover Plate when Cabling into Adapter) (for Part # 510 109 179/197)
510 109 328	Connector Cover Plate for 9 Pin, D-Shell (for Part # 510 109 179/197)
510 109 327	Connector Cover Plate for 15 Pin, D-Shell (for Part # 510 109 179/197)
510 109 326	Connector Cover Plate for 25 Pin, D-Shell (for Part # 510 109 179/197)
510 109 329	Connector Cover Plate for 50 Pin, D-Shell (for Part # 510 109 179/197)
510 109 330	Connector Plate for BNC Connector (for Part # 510 109 179/197)

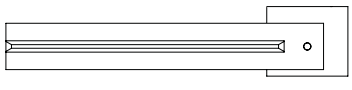
A special Punch Tool, Part # 910 121 137 is required to mount the InterConnect Adapter on a few VXI cards. Module Extraction Tool, Part # 910 109 111, is used to extract the VXI card and InterConnect Adapter from the mainframe is available. Consult VPC for more information.

Universal Edge Card Adapter Kits

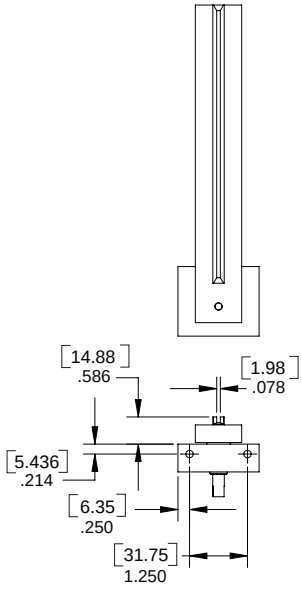
VPC provides Edge Card Adapter Kits for 10, 25 and 50 Module ITA Enclosures. Both kits are designed for various sized cards.

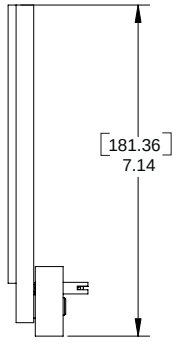
The Universal Edge Card Adapter Kit's card guides are hinged and can be folded for storage by releasing the holding latches on either side of the card.

The Versamount Edge Card Adapter Kit includes card guides with adjustable locking brackets. The rugged card guides and brackets are molded of durable, dimensionally stable polycarbonate.



SHOWN IN ROTATED POSITION





Part # 111 107 138

Part #	Description
111 107 138	Edge Card Adapter, Universal, for .062 PCB
111 107 148	Edge Card Adapter, for .093 PCB
111 107 140	Edge Card Adapter, Versamount, for .062 PCB

Accessory Kits

See the Cross Reference for module screw sizes to determine which accessory kit contains the needed module screw.

Part #	Description	Module Used in
910 121 174	Allen Wrench Kit, Contains $^{3}/_{32}$, $^{7}/_{64}$ and $^{5}/_{32}$	
510 109 299	Module Accessory Master Kit with Allen Wrenches (contains all kits listed below)	
910 121 172	Module Accessory Kit Quantity 5, $^{3}/_{32}$ Allen Wrenches	
510 109 300	Module Accessory Kit Quantity 39, 0-80 X .25" Screws	510 104 120/123 510 104 267/270
510 109 301	Module Accessory Kit Quantity 26, 4-40 X .375" Screws	510 108 104 510 104 118
510 109 302	Module Accessory Kit Quantity 26, 4-40 X .625" Screws	510 108 169/179 510 104 209/224 510 108 144/160 510 104 109/128/134/135 510 104 136/139/149/185 510 151 104/105/106/107/108 510 151 121
510 109 303	Module Accessory Kit Quantity 26, 4-40 X .56" Screws	510 104 102/120/123/150/155 510 104 267/270 510 108 101/112/125/140 510 108 102/126/131/148 510 108 111/115/124/132/138 510 108 262/263
510 109 305* 510 109 306* 510 109 307*	Module Accessory Kit Quantity 26, 2-56 X .187" Screws Module Accessory Kit Quantity 26, 2-56 X .375" Screws Module Accessory Kit Quantity 26, 2-56 X .25" Screws	510 104 128/133/134/135/136/139/261 510 104 139/149; 510 108 148 510 104 206/243/249
510 109 359	Module Accessory Kit Quantity 26, 4-40 X .75" Screws	510 150 115/116/125/126/127/128 510 150 130/131/135/136/137 510 150 141/142/143/147/148 510 150 152/153/154/155

* These screws are used to assemble the top and bottom half of a module.

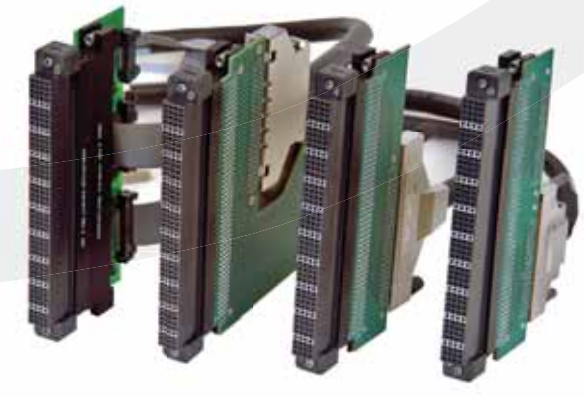
Complete the Package
with Contacts, Modules and Tools.

Reconfigurable Connector Modules

- Handles various contact requirements such as digital, power, coaxial and more
- Able to be intermixed in any configuration depending on the test requirements
- Fiber optic modules are also available

Easy Integration with PCB Adapters

- Enables reduced wiring and ease of integration while providing wiring convenience in a cost-effective package
- Incorporates a Printed Circuit Board (PCB) with standard SCSI or VHDCI connectors
- Offers true "plug and play" InterConnectivity between module and instrumentation with COTS double ended cable assemblies



Less Complication with Patchcords

- Quality inspected patchcords are available in various lengths to suit any application
- Cost-effective solution for your wiring needs
- Reduced setup time with pre-terminated contacts
- Most contacts are rated to 20,000 mating cycles

Variety of Connection Options

- Configurable for virtually any InterConnect requirement
- Reliable connections maintain signal integrity
- QuadraPaddle accepts standard .100" [2.54 mm] pitch headers and connectors for PCB, ribbon cable and other connections as well as discrete wiring

Complete Tool Selection

- Crimp tools and locators are available to easily terminate contact and wire
- Extraction tools remove contacts from the module quickly when necessary, saving you time and money
- Quality inspection tools allow you to examine your patchcords to ensure proper function before system integration

Experience

the versatility of QuadraPaddle®.

QuadraPaddle Signal Contact Technology

- Allows infinite configuration possibilities for InterConnectivity
- High density 192 and 480 pin modules molded on .100" (2.54 mm) centers provide seamless integration with COTS products
- Consolidates multiple instrument connections within the space of a single or double module slot position

Plug and Play Versatility

- Versatile twin female contacts provide four beams per end to ensure signal integrity from instrumentation to the Unit Under Test (UUT)
- Twin Male contacts interconnect to ribbon cable, headers, and other standard connectors
- Makes system configuration a simple “plug and play” operation and delivers high density, high performance InterConnectivity at a lower cost per point

PCB Adapter Solutions

- Ideal for PXI applications
- Available in configurations that incorporate PCB with standard SCSI connectors
- Allows rapid InterConnectivity by using double ended COTS cables for reduced wiring and ease of integration

PXI

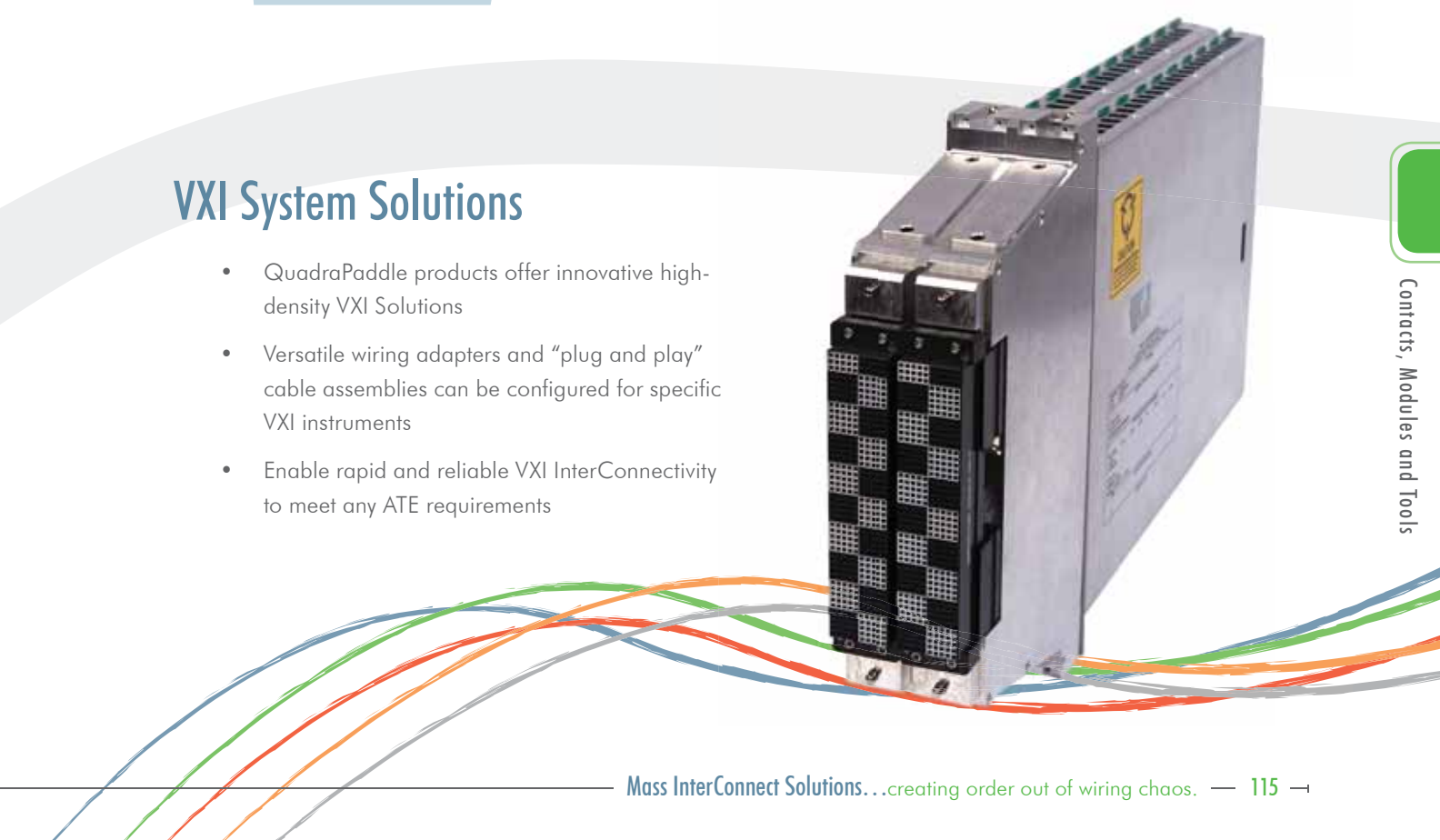
Discrete Wired Configurations

- QuadraPaddle contacts and modules are available in discrete-wired versions for standard crimp configurations
- Unique backshell assembly provides strain relief as well as EMI-shielding to preserve signal integrity
- Additional Strain Relief plates are available for tying down wires leading to the testing equipment

VXI PLUG & PLAY

VXI System Solutions

- QuadraPaddle products offer innovative high-density VXI Solutions
- Versatile wiring adapters and "plug and play" cable assemblies can be configured for specific VXI instruments
- Enable rapid and reliable VXI InterConnectivity to meet any ATE requirements



QuadraPaddle® Signal Contacts

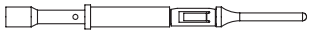
Contact Specifications

Operating Current and Voltage	3 Amp Max. Continuous; 600 volt Max. use of wire Mil-W-16878/4
Contact Resistance	25 mOhms Max. Measured at 50 mV @ 100 mA
Insertion Force	2 oz. Nominal
Dielectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	5000 MOhms Min.
Contact Body	(RCV) – BeCu (Twin Female) BeCu/PhBrz (Crimp) Male (ITA) – Brass
Contact Plating	Female (RCV) – 50μ" Au over 100μ" Ni Male (ITA) – 30μ" Au over 100μ" Ni
Cycle Life	20,000 Cycles

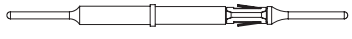
Part # 610 138 116

Part # 610 138 109

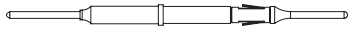
Part # 610 138 100



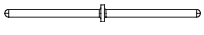
Part # 610 138 112



Part # 610 138 115

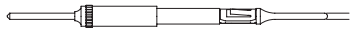


Part # 610 138 111



Part # 610 138 117

Part # 610 138 118



Part # 610 138 122

Part #	Description	Used in Module
QUADRAPADDLE RECEIVER CONTACTS		
610 138 116	Signal Contact, Receiver, QuadraPaddle, 3 Amp, 22-28 AWG, Crimp	510 150 115/116
610 138 100	Signal Contact, Receiver, QuadraPaddle, 3 Amp, Twin Female – Replacement	510 150 130/131
610 138 117	Signal Contact, Receiver, QuadraPaddle, 3 Amp, Male Adapter, .025" Round Post	510 150 137/135/130/131
610 138 118	Signal Contact, Receiver, QuadraPaddle, 3 Amp, Male Adapter, .025" Square Post for Wire Wrap	510 150 136/147/130/131
QUADRAPADDLE ITA CONTACTS		
610 138 115	Signal Contact, ITA, QuadraPaddle, 3 Amp, .025" Round Post Twin Male Accepts .100" (2.54 mm) standard female connectors for infinite configurations	510 151 105/106/107/108
610 138 109	Signal Contact, QuadraPaddle, ITA, 3 Amp, 22–24 AWG, Crimp/Solder	510 151 105/106
610 138 112	Signal Contact, ITA, QuadraPaddle, 3 Amp, 26–28 AWG, Crimp/Solder	510 151 105/106
610 138 111	Signal Contact, ITA, QuadraPaddle, 3 Amp, .025" Square Post for Wire Wrap	510 151 105/106
610 138 122	Signal Contact, ITA, QuadraPaddle, 3 Amp, .025" Square Post for Wire Wrap, with Anti-Rotation	510 151 105/124

QuadraPaddle® Signal Patchcords

QuadraPaddle Receiver Patchcord				QuadraPaddle ITA Patchcord	
Part #	Contact Used	Length	AWG	Description	Used in Module
QUADRAPADDLE RECEIVER PATCHCORDS					
7-122 924 000-036	610 138 116	36"	24	Receiver, Single Ended	510 150 115/116
7-122 924 000-072	610 138 116	72"	24	Receiver, Single Ended	510 150 115/116
7-122 922 000-036	610 138 116	36"	22	Receiver, Single Ended	510 150 115/116
7-122 922 000-072	610 138 116	72"	22	Receiver, Single Ended	510 150 115/116
QUADRAPADDLE ITA PATCHCORDS					
7-121 924 000-036	610 138 109	36"	24	ITA, Single Ended	510 151 105/106
7-121 924 000-072	610 138 109	72"	24	ITA, Single Ended	510 151 105/106
7-121 922 000-036	610 138 109	36"	22	ITA, Single Ended	510 151 105/106
7-121 922 000-072	610 138 109	72"	22	ITA, Single Ended	510 151 105/106
QUADRAPADDLE ITA JUMPERS					
7-121 924 121-006	610 138 109	6"	24	ITA, Double Ended	510 151 105/106
7-121 922 121-006	610 138 109	6"	22	ITA, Double Ended	510 151 105/106

QuadraPaddle Receiver Twisted Pair Patchcord				QuadraPaddle ITA Twisted Pair Patchcord	
Part #	Contact Used	Length	AWG	Description	Used in Module
QUADRAPADDLE RECEIVER TWISTED PAIR PATCHCORDS					
7-122 424 000-036	610 138 116	36"	24	Receiver, Single Ended	510 150 115/116
7-122 424 000-072	610 138 116	72"	24	Receiver, Single Ended	510 150 115/116
7-122 422 000-036	610 138 116	36"	22	Receiver, Single Ended	510 150 115/116
7-122 422 000-072	610 138 116	72"	22	Receiver, Single Ended	510 150 115/116
QUADRAPADDLE ITA TWISTED PAIR PATCHCORDS					
7-121 424 000-036	610 138 109	36"	24	ITA, Single Ended	510 151 105/106
7-121 424 000-072	610 138 109	72"	24	ITA, Single Ended	510 151 105/106
7-121 422 000-036	610 138 109	36"	22	ITA, Single Ended	510 151 105/106
7-121 422 000-072	610 138 109	72"	22	ITA, Single Ended	510 151 105/106
QUADRAPADDLE ITA TWISTED PAIR JUMPERS					
7-121 424 121-006	610 138 109	6"	24	ITA, Double Ended	510 151 105/106
7-121 422 121-006	610 138 109	6"	22	ITA, Double Ended	510 151 105/106

USB PATCHCORDS

7-122 872 596-036	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 36", USB 2.0 Wire, to USB Type A Plug
7-122 872 596-072	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 72", USB 2.0 Wire, to USB Type A Plug
7-121 872 596-036	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 36", USB 2.0 Wire, to USB Type A Plug
7-121 872 596-072	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 72", USB 2.0 Wire, to USB Type A Plug

RJ45 PATCHCORDS

7-122 870 595-036	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 36", CAT5e, to RJ45 Plug
7-122 870 595-072	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 72", CAT5e, to RJ45 Plug
7-123 870 595-036	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 36", CAT5e, to RJ45 Plug
7-123 870 595-072	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 72", CAT5e, to RJ45 Plug

TECH TIP

Please see Tech Tip #15 for Quadrapaddle Bandwidths.

** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

192 Position QuadraPaddle® Signal Modules

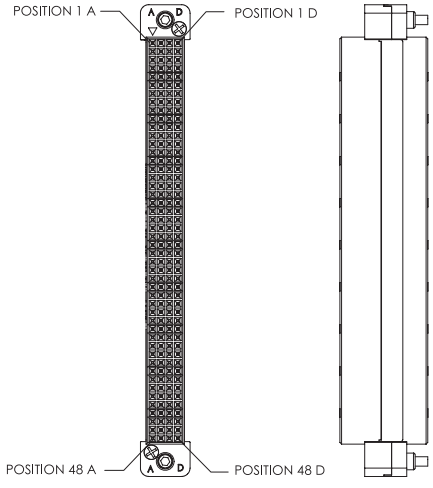
Module Specifications

Receiver Material	Black Liquid Crystal Polymer
Receiver Temperature Range	Operating • –55° C to 125° C Non Operating • –65° C to 225°C
ITA Material	Black Liquid Crystal Polymer
ITA Temperature Range	Operating • –55° C to 125° C Non Operating • –65° C to 225°C
Available Contact Positions	192
Module Slots Needed	1

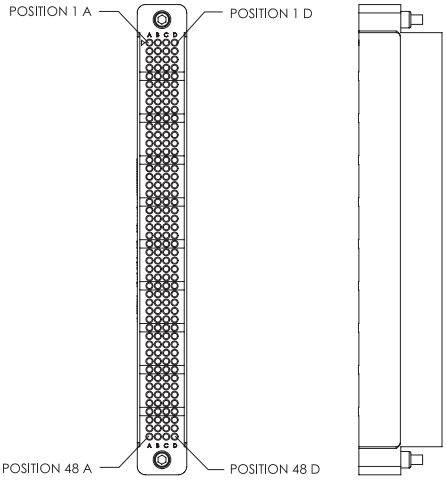
TECH TIP

Please see Tech Tip #10 to learn how to extract contacts from the QuadraPaddle Receiver Modules.

192 Position QuadraPaddle Modules • ITA and Receiver



RCV • 510 150 115



ITA • Part # 510 151 105

Part #	Description	Contacts Used
192 POSITION RECEIVER MODULES AND STRAIN RELIEF		
510 150 130	Signal Module, Receiver, QuadraPaddle, 192 Position, Fully Loaded with Twin Female Contacts	610 138 100
510 150 115	Signal Module, Receiver, QuadraPaddle, 192 Position, Wire Crimp, Unloaded	610 138 116
510 150 136	Signal Module, Receiver, QuadraPaddle, 192 Position, Fully Loaded for Wire Wrap	610 138 100/118
510 150 137	Signal Module, Receiver, QuadraPaddle, 192 Position, Fully Loaded with Round Posts	610 138 100/117
510 109 349	Strain Relief for QuadraPaddle 192 Position Module	
192 POSITION ITA MODULES AND STRAIN RELIEF		
510 151 105	Signal Module, ITA, QuadraPaddle, 192 Position, Unloaded	610 138 109/112/115
510 151 107	Signal Module, ITA, QuadraPaddle, 192 Position, Round Post, Fully Loaded	610 138 115
510 151 124	Signal Module, ITA, QuadraPaddle, 192 Position, Fully Loaded with 610 138 122 (wire wrap with anti-rotation)	610 138 122
510 109 296	Strain Relief Plate for ITA Modules	

480 Position QuadraPaddle® Signal Modules

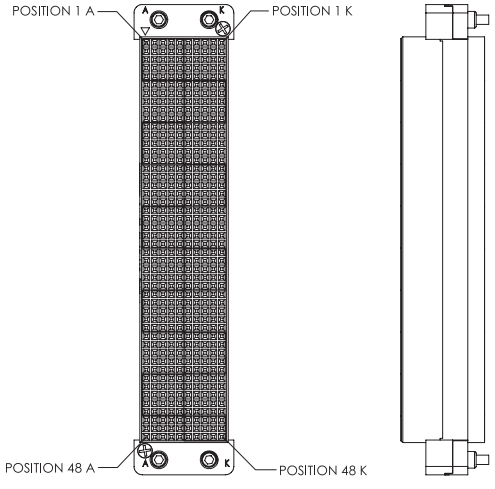
Module Specifications

Receiver Material	Black Liquid Crystal Polymer
Receiver Temperature	Operating • –55° C to 125° C Non Operating • –65° C to 225° C
ITA Material	Black PPS
ITA Temperature	Operating • –55° C to 125° C Non Operating • –65° C to 200° C
Available Contact Positions	480
Module Slots Needed	2

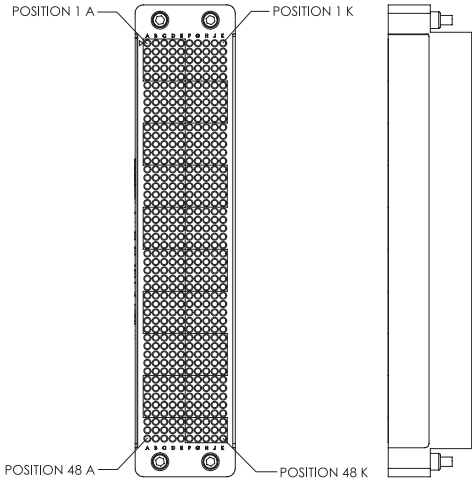
TECH TIP

Please see Tech Tip #10 to learn how to extract contacts from the QuadraPaddle Receiver Modules.

480 Position QuadraPaddle Modules • ITA and Receiver



RCV • 510 150 116



ITA • Part # 510 151 106

Part #	Description	Contacts Used
480 POSITION RECEIVER MODULES AND STRAIN RELIEF		
510 150 131	Signal Module, Receiver, QuadraPaddle, 480 Position, Fully Loaded with Twin Female Contacts	610 138 100
510 150 116	Signal Module, Receiver, QuadraPaddle, 480 Position, Unloaded	610 138 116
510 150 147	Signal Module, Receiver, QuadraPaddle, 480 Position, Fully Loaded for Wire Wrap	610 138 100/118
510 150 135	Signal Module, Receiver, QuadraPaddle, 480 Position, Fully Loaded with Round Posts	610 138 100/117
510 109 348	Strain Relief for QuadraPaddle 480 Position Module	
480 POSITION ITA MODULES AND STRAIN RELIEF		
510 151 106	Signal Module, ITA, QuadraPaddle, 480 Position, Unloaded	610 138 109/112/115
510 151 108	Signal Module, ITA, QuadraPaddle, 480 Position, Round Post, Fully Loaded	610 138 115
510 109 296	Strain Relief Plate for ITA Modules	

QuadraPaddle® Contact Tools

Part # 910 101 103 is used with Locator Part # 910 104 140 to crimp ITA QuadraPaddle contacts to 22-28 AWG wire.

Part # 910 101 103

Crimp Tool Part # 910 101 125 is used to crimp receiver QuadraPaddle contacts.

Part # 910 101 125

Extraction Tool Part # 910 110 112 is used to extract the receiver QuadraPaddle contacts from the module.

Part # 910 110 112

Extraction Tool Part # 910 110 111 is used to remove the ITA QuadraPaddle contacts from the module.

Part # 910 110 111

Part #	Description	Used on Contact
CRIMP TOOLS		
910 101 125	Tool, Crimp, QuadraPaddle, Receiver	610 138 116
910 101 103	Tool, Crimp, QuadraPaddle and TriPaddle Contacts, Locator Required	610 138 109/112
LOCATOR		
910 104 140	Tool, Locator, QuadraPaddle, ITA Contact	610 138 109/112
EXTRACTION TOOLS		
910 110 111	Tool, Extraction, ITA, QuadraPaddle	610 138 109/111/112/115
910 110 112	Tool, Extraction, Receiver, QuadraPaddle	610 138 116

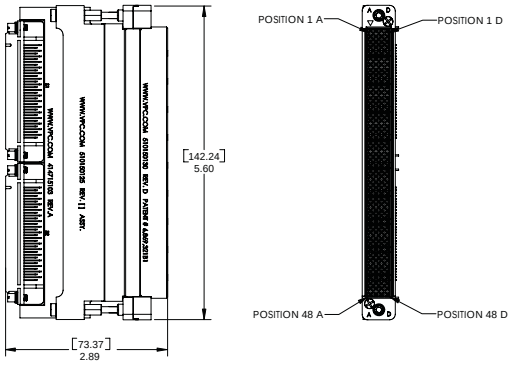
** Complete Instructions on how to use these tools can be found at vpc.com in the QuadraPaddle User's Manual.*

SCSI and VHDCI PCB Adapters • 2 x 68

PCB Specifications

Current Rating	1 Amp @ 30 VAC
Temperature	–55° to 105° C
Termination Resistance	50 mOhms Typical
Insulation Resistance	1000 MOhms Min.
DWV	500 VAC Min.
Module Slots Needed	1

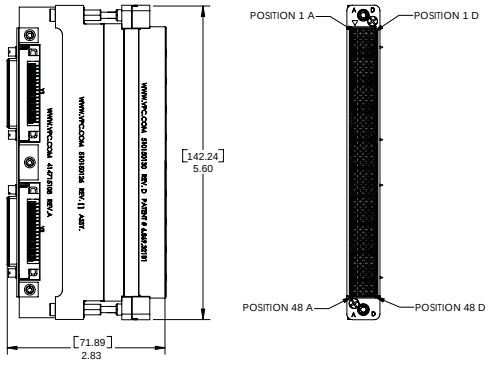
QuadraPaddle SCSI PCB Adapter • 2 x 68



CONNECTOR

0.050" [1.27] PITCH SCSI PLUG
SHIELDED, ACCEPTS 2-56 JACK SCREWS
68 CIRCUITS

Part # 510 150 125



CONNECTOR

0.031" [0.80] PITCH VHDCI RECEPTACLE,
SHIELDED, ACCEPTS M2 X 0.4 JACK SCREWS
68 CIRCUITS

Part # 510 150 126

Part #	Description

2 X 68 SCSI PCB ADAPTER

510 150 125	PCB Adapter, Receiver, 192 Position QuadraPaddle to PCB-Mounted 2x68 Male SCSI Connectors
510 150 126	PCB Adapter, Receiver, 192 Position QuadraPaddle to PCB-Mounted 2x68 Female VHDCI Connectors

STANDARD CABLES FOR PCB ADAPTERS – 18"

515 109 113	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male VHDCI (Thumb Screws), 18"
515 109 117	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Female SCSI (Thumb Screws), 18"
515 109 119	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male SCSI (Spring Latch), 18"
515 109 121	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male SCSI (Thumb Screws), 18"
515 109 130	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Female SCSI (Spring Latch), 18"
515 109 001	Cable Assembly, 68 Pin Male VHDCI (Thumb Screws) to 68 Pin Male VHDCI (Thumb Screws), 18"

STANDARD CABLES FOR PCB ADAPTERS – 36"

515 109 114	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male VHDCI (Thumb Screws), 36"
515 109 118	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Female SCSI (Thumb Screws), 36"
515 109 120	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male SCSI (Spring Latch), 36"
515 109 122	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male SCSI (Thumb Screws), 36"
515 109 131	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Female SCSI (Spring Latch), 36"
515 109 002	Cable Assembly, 68 Pin Male VHDCI (Thumb Screws) to 68 Pin Male VHDCI (Thumb Screws), 36"

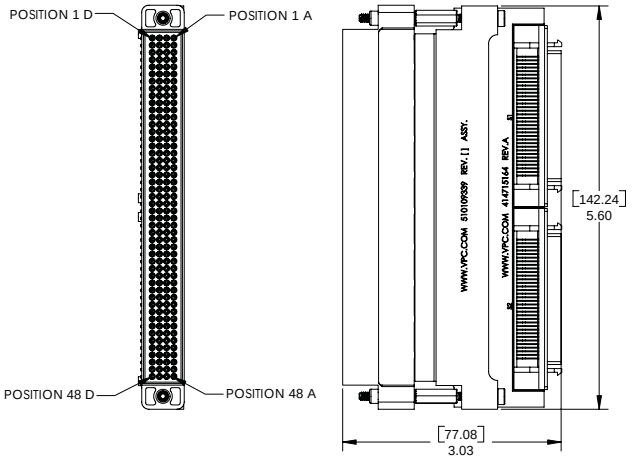
** Custom cable assemblies for specific PXI and VXI instrument cards are available at vpc.com*

SCSI and VHDCI ITA PCB Adapters • 2 x 68

PCB Specifications

Current Rating	1 Amp @ 30 VAC
Temperature	–55° to 105° C
Termination Resistance	50 mOhms Typical
Insulation Resistance	1000 MOhms Min.
DWV	500 VAC Min.
Module Slots Needed	1

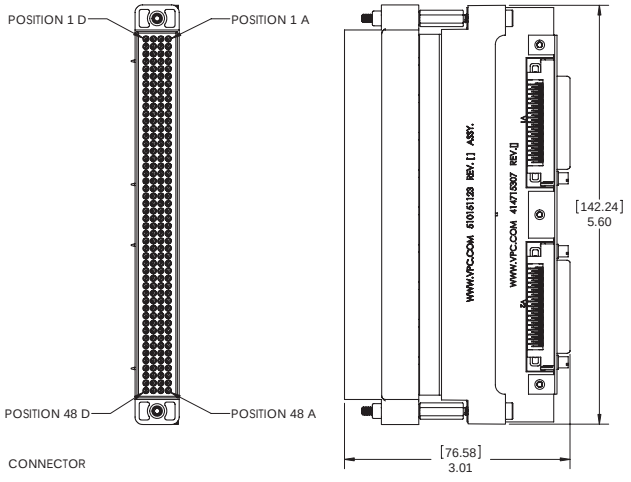
QuadraPaddle SCSI ITA PCB Adapter • 2 x 68



CONNECTOR

0.050" [1.27mm] PITCH SCSI+ RECEPTACLE
SHIELDED WITH LATCHES, 68 CIRCUITS

Part # 510 109 339



CONNECTOR

0.031" [0.80] PITCH VHDCI RECEPTACLE
SHIELDED, ACCEPTS M2 X 0.4 JACK SCREWS
68 CIRCUITS

Part # 510 151 123

Part #	Description

2 X 68 ITA SCSI PCB ADAPTER

510 109 339	PCB Adapter, ITA, 192 Position QuadraPaddle to PCB-mounted 2 x 68 Pin Female SCSI Connector
510 151 123	PCB Adapter, ITA, QuadraPaddle, 192 Position, to PCB-Mounted 2x68 Pin Female VHDCI Connectors

STANDARD CABLES FOR PCB ADAPTERS – 18"

515 109 119	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male SCSI (Spring Latch), 18"

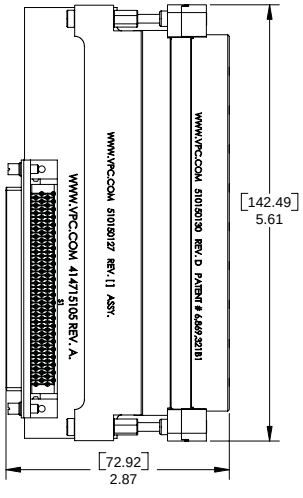
** Custom cable assemblies for specific PXI and VXI instrument cards are available at vpc.com*

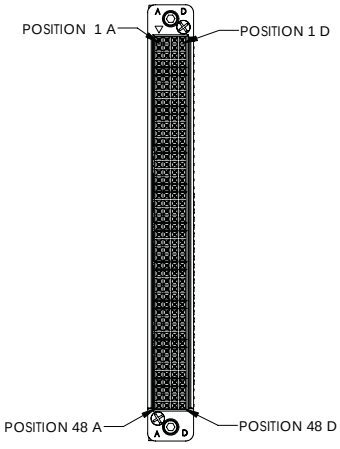
SCSI PCB Adapter • 1 x 100

PCB Specifications

Current Rating	1 Amp @ 30 VAC
Temperature	–55° to 105° C
Termination Resistance	50 mOhms Typical
Insulation Resistance	1000 MOhms Min.
DWV	500 VAC Min.
Module Slots Needed	1

QuadraPaddle SCSI PCB Adapter • 1 x 100





CONNECTOR

0.050" [1.27] PITCH SCSI RECEPTACLE
SHIELDED, ACCEPTS 4-40 JACK SCREWS
100 CIRCUITS

Part #	Description

1 X 100 SCSI PCB ADAPTER

510 150 127 PCB Adapter, Receiver, 192 Position QuadraPaddle to PCB-Mounted 1 x 100 Pin Female SCSI Connector

STANDARD CABLES FOR PCB ADAPTERS – 18" AND 36"

515 109 134 Cable Assembly, 100 Pin Male SCSI (Thumb Screws) to 100 Pin Male SCSI (Thumb Screws), 18"

515 109 133 Cable Assembly, 100 Pin Male SCSI (Thumb Screws) to 100 Pin Male SCSI (Thumb Screws), 36"

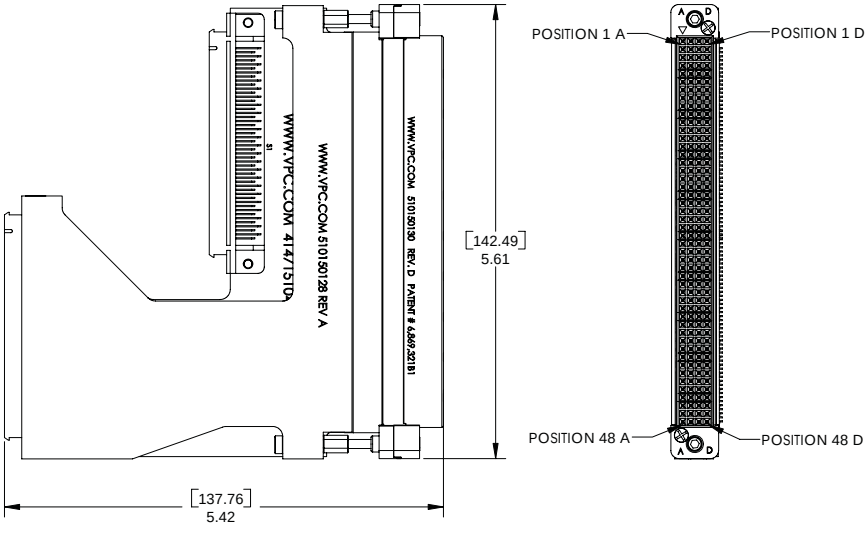
** Custom cable assemblies for specific PXI and VXI instrument cards are available at vpc.com*

SCSI PCB Adapter • 2 x 96

PCB Specifications

Current Rating	1 Amp @ 30 VAC
Temperature	–55° to 105° C
Termination Resistance	50 mOhms Typical
Insulation Resistance	1000 MOhms Min.
DWV	500 VAC Min.
Module Slots Needed	1

QuadraPaddle SCSI PCB Adapter • 2 x 96



CONNECTOR

0.050" [1.27] PITCH SCSI PLUG
WITH LATCHES, 96 CIRCUITS

Part #	Description

2 X 96 SCSI PCB ADAPTER

510 150 128 PCB Adapter, Receiver, 192 Position QuadraPaddle to 2 x 96 Pin Male SCSI Connector

STANDARD CABLES FOR PCB ADAPTERS – 18" AND 36"

515 109 007 Cable Assembly, 96 Pin Female SCSI (Spring Latch) to 96 Pin Female SCSI (Spring Latch), 18"

515 109 008 Cable Assembly, 96 Pin Female SCSI (Spring Latch) to 96 Pin Male SCSI (Spring Latch), 36"

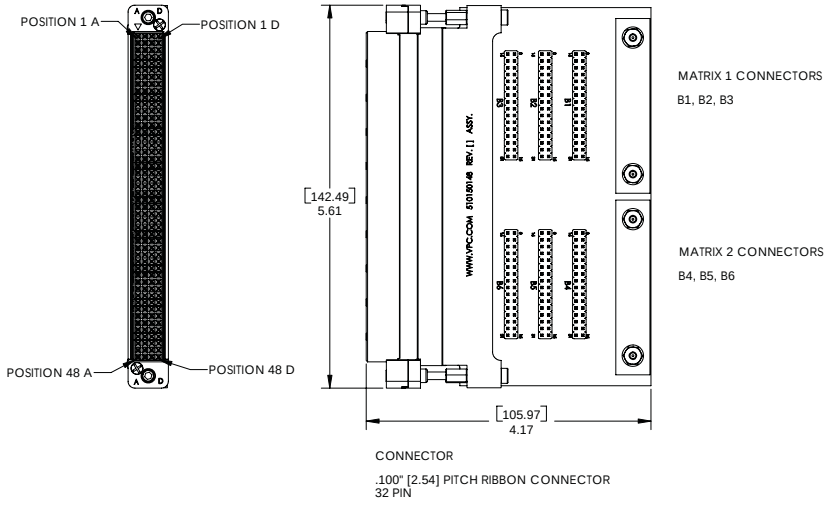
** Custom cable assemblies for specific PXI and VXI instrument cards are available at vpc.com*

Terminal Block PCB Adapter • NI PXI-2529

PCB Specifications

Current Rating	2 Amp @ 150 V RMS
Operating Temperature Range	–65° C to 105° C
Termination Resistance	50 mOhms Typical
Insulation Resisitance	1000 MOhms Min.
DWV	500 VAC Min.
Module Slots Needed	1

QuadraPaddle Terminal Block PCB Adapter • NI PXI-2529



NOTE: This PCB Adapter will accommodate one or two NI TB-2634 terminal blocks

Part #	Description

PCB ADAPTER FOR NATIONAL INSTRUMENTS™ NI PXI-2529

510 150 148	PCB Adapter, Receiver, 192 Position QuadraPaddle to NI PXI-2529
510 150 153	PCB Adapter, Receiver, 192 Position QuadraPaddle to NI PXI-2529 with six 20" cables
510 150 154	PCB Adapter, Receiver, 192 Position QuadraPaddle to NI PXI-2529 with six 36" cables

PCB ADAPTER WITH ALL PINS WIRED

510 150 155	PCB Adapter, Receiver, QuadraPaddle, 192 Position, to PCB-Mounted 6x32-Pin Ribbon Cable Headers

STANDARD CABLES FOR PCB ADAPTERS – 20" AND 36"

515 109 162	Cable Assembly, 32 Pin .100" [2.54 mm] Pitch Ribbon Cable, Double-ended, 20"
515 109 163	Cable Assembly, 32 Pin .100" [2.54 mm] Pitch Ribbon Cable, Double-ended, 36"

**Three cables are required for each terminal block*

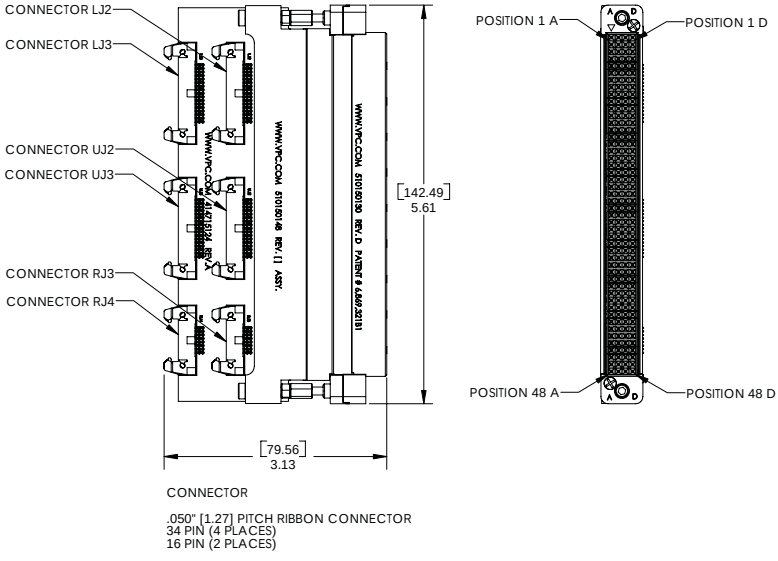
NOTE: This is a left mount PCB Adapter for optimal cable management. Do not use beside a right mount PCB Adapter.

Terminal Block PCB Adapters • NI PXI-2532

PCB Specifications

Current Rating	0.5 Amp @ 150 V RMS
Operating Temperature Range	–65° C to 105° C
Termination Resistance	50 mOhms Typical
Insulation Resistance	1000 MOhms Min.
DWV	500 VAC Min.
Module Slots Needed	1

QuadraPaddle Terminal Block PCB Adapter • NI PXI-2532



NOTE: This PCB Adapter works with terminal blocks NI TB-2640, NI TB-2641, NI TB-2643, and NI TB-2644

Part #	Description

PCB ADAPTER FOR NATIONAL INSTRUMENTS™ NI PXI-2532

510 150 141	PCB Adapter, Receiver, 192 Position QuadraPaddle to NI PXI-2532
510 150 142	PCB Adapter, Receiver, 192 Position QuadraPaddle to NI PXI-2532 with 20" cables
510 150 143	PCB Adapter, Receiver, 192 Position QuadraPaddle to NI PXI-2532 with 36" cables

STANDARD CABLES FOR PCB ADAPTERS – 20" AND 36"

515 109 143	Cable Assembly, 16 Pin .050" (1.27mm) Pitch Ribbon Cable, Double Ended, 20"
515 109 144	Cable Assembly, 16 Pin .050" (1.27mm) Pitch Ribbon Cable, Double Ended, 36"
515 109 145	Cable Assembly, 34 Pin .050" (1.27mm) Pitch Ribbon Cable, Double Ended, 20"
515 109 146	Cable Assembly, 34 Pin .050" (1.27mm) Pitch Ribbon Cable, Double Ended, 36"

QuadraPaddle® 192 Position Right Angle Contact Modules

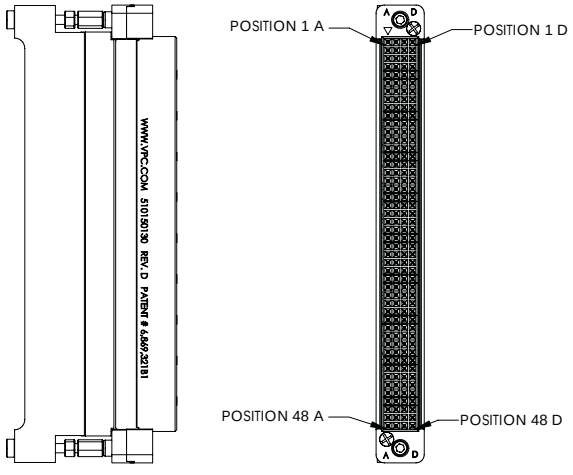
PCB Specifications

Receiver and ITA Material	Black LCP/Black PEI
Temperature	–55° C to 125° C
Available Contact Positions	192
Module Slots Needed	1

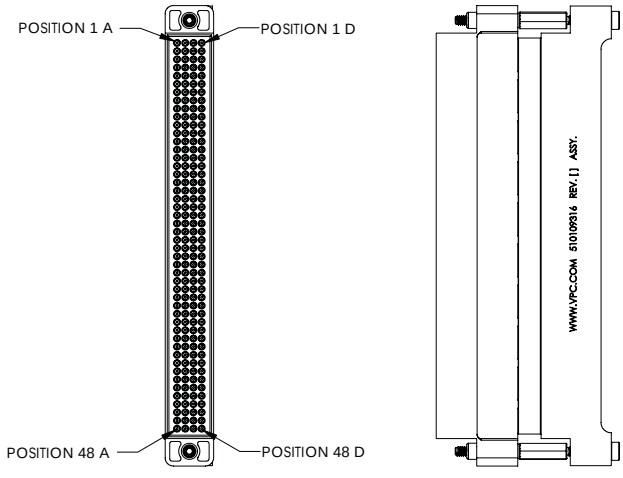
TECH TIP

Please see Tech Tip #11 for the PCB layout for this module.

QuadraPaddle 192 Position Right Angle Contact Modules



RCV • Part # 510 150 152



ITA • Part # 510 151 121

Part #	Description

192 POSITION RECEIVER RIGHT ANGLE CONTACT MODULE

510 150 152	Signal Module, Receiver, 192 Position QuadraPaddle with Right Angle Contacts for custom PCB Mounting
510 109 315	192 Position QuadraPaddle Receiver Right Angle Header/Shroud Kit (for customer designed PCB, Module Not Included)

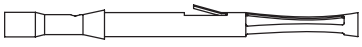
192 POSITION ITA RIGHT ANGLE CONTACT MODULE

510 151 121	Signal Module, ITA, 192 Position QuadraPaddle with Right Angle Contacts for custom PCB Mounting
510 109 316	192 Position QuadraPaddle ITA Right Angle Header/Shroud Kit (for customer designed PCB, Module Not Included)

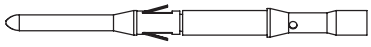
TriPaddle Signal Contacts

Contact Specifications

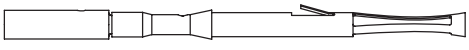
Operating Voltage and Current	5 Amp Max. Continuous (22 AWG) 10 Amp Max. Continuous (14 AWG) 600 Volt Max. use of wire mil-w-16878/4
Contact Resistance	4 mOhms Max. Measured at 50 mV @ 100 mA
Insertion Force	4 oz. Nominal
Dielectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	4000 MOhms Min.
Contact Body	Female (RCV) – BeCu Male (ITA) – Brass
Contact Plating	Female (RCV) – 30μ" Au over 100μ" Ni Male (ITA) – 30μ" Au over 100μ" Ni 10 Amp (RCV & ITA) – 50μ" Au over 100μ" Ni
Cycle Life	20,000 Cycles



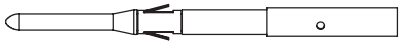
Part # 610 110 101



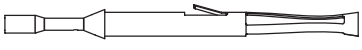
Part # 610 110 108



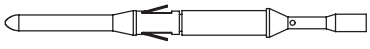
Part # 610 110 128



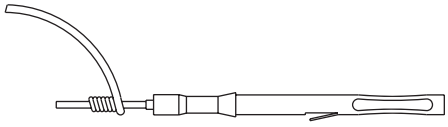
Part # 610 110 129



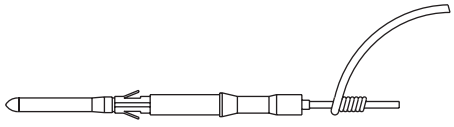
Part # 610 110 167



Part # 610 110 169



Part # 610 110 104



Part # 610 110 113

Part #	Description	Used in Module
TRIPADDLE RECEIVER CONTACTS		
610 110 101	Signal Contact, Receiver, TriPaddle, 5 Amp, 20-24 AWG, 30μ" Gold	510 104 134/136/149/206/243
610 110 128	Signal Contact, Receiver, TriPaddle, 10 Amp, 14 AWG max, 50μ" Gold	510 104 134/136/149/206/243
610 110 167	Signal Contact, Receiver, TriPaddle, 5 Amp, 26-28 AWG, 30μ" Gold	510 104 134/136/149/206/243
610 110 104	Signal Contact, Receiver, TriPaddle, 5 Amp, .025" Post for Wire Wrap, 30μ" Gold	510 104 134/136/149/206/243
TRIPADDLE ITA CONTACTS		
610 110 108	Signal Contact, ITA, TriPaddle, 5 Amp, 20-24 AWG, 30μ" Gold	510 108 101/126/131/178/210
610 110 129	Signal Contact, ITA, TriPaddle, 10 Amp, 14 AWG max, 30μ" Gold	510 108 101/126/131/178/210
610 110 169	Signal Contact, ITA, TriPaddle, 5 Amp, 26-28 AWG, 30μ" Gold	510 108 101/126/131/178/210
610 110 113	Signal Contact, ITA, TriPaddle, 5 Amp, .025" Post for Wire Wrap, 30μ" Gold	510 108 101/126/131/178/210

TriPaddle Signal Patchcords

TriPaddle Receiver Patchcord				TriPaddle ITA Patchcord	
Part #	**Contact Used**	**Length**	**AWG**	**Description**	**Used in Module**
TRIPADDLE RECEIVER PATCHCORDS					
7-104 924 000-036	610 110 101	36"	24	Receiver, Single Ended	510 104 134/136/149/206/243
7-104 924 000-072	610 110 101	72"	24	Receiver, Single Ended	510 104 134/136/149/206/243
7-104 922 000-036	610 110 101	36"	22	Receiver, Single Ended	510 104 134/136/149/206/243
7-104 922 000-072	610 110 101	72"	22	Receiver, Single Ended	510 104 134/136/149/206/243
7-102 914 000-036	610 110 128	36"	14	Receiver, Single Ended	510 104 134/136/149/206/243
7-102 914 000-072	610 110 128	72"	14	Receiver, Single Ended	510 104 134/136/149/206/243
TRIPADDLE ITA PATCHCORDS					
7-103 924 000-036	610 110 108	36"	24	ITA, Single Ended	510 108 101/126/131/178/210
7-103 924 000-072	610 110 108	72"	24	ITA, Single Ended	510 108 101/126/131/178/210
7-103 922 000-036	610 110 108	36"	22	ITA, Single Ended	510 108 101/126/131/178/210
7-103 922 000-072	610 110 108	72"	22	ITA, Single Ended	510 108 101/126/131/178/210
7-101 914 000-036	610 110 129	36"	14	ITA, Single Ended	510 108 101/126/131/178/210
7-101 914 000-072	610 110 129	72"	14	ITA, Single Ended	510 108 101/126/131/178/210
TRIPADDLE ITA PATCHCORD JUMPERS (DOUBLE ENDED)					
7-103 924 103-006	610 110 108	6"	24	ITA, Double Ended	510 108 101/126/131/178/210
7-103 922 103-006	610 110 108	6"	22	ITA, Double Ended	510 108 101/126/131/178/210
7-101 914 101-006	610 110 129	6"	14	ITA, Double Ended	510 108 101/126/131/178/210

TriPaddle Receiver Twisted Pair Patchcord				TriPaddle ITA Twisted Pair Patchcord	
Part #	**Contact Used**	**Length**	**AWG**	**Description**	**Used in Module**
TRIPADDLE RECEIVER TWISTED PAIR PATCHCORDS					
7-104 424 000-036	610 110 101	36"	24	Receiver, Single Ended	510 104 134/136/149
7-104 424 000-072	610 110 101	72"	24	Receiver, Single Ended	510 104 134/136/149
7-104 422 000-036	610 110 101	36"	22	Receiver, Single Ended	510 104 134/136/149
7-104 422 000-072	610 110 101	72"	22	Receiver, Single Ended	510 104 134/136/149
TRIPADDLE ITA TWISTED PAIR PATCHCORDS					
7-103 424 000-036	610 110 108	36"	24	ITA, Single Ended	510 108 101/126/131
7-103 424 000-072	610 110 108	72"	24	ITA, Single Ended	510 108 101/126/131
7-103 422 000-036	610 110 108	36"	22	ITA, Single Ended	510 108 101/126/131
7-103 422 000-072	610 110 108	72"	22	ITA, Single Ended	510 108 101/126/131
TRIPADDLE ITA TWISTED PAIR PATCHCORD JUMPERS (DOUBLE ENDED)					
7-103 424 103-006	610 110 108	6"	24	ITA, Double Ended	510 108 101/126/131/178/210
7-103 422 103-006	610 110 108	6"	22	ITA, Double Ended	510 108 101/126/131/178/210

USB PATCHCORDS

7-104 872 596-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", USB 2.0 Wire, to USB Type A Plug
7-104 872 596-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", USB 2.0 Wire, to USB Type A Plug
7-103 872 596-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", USB 2.0 Wire, to USB Type A Plug
7-103 872 596-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", USB 2.0 Wire, to USB Type A Plug

RJ45 PATCHCORDS

7-106 870 595-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", CAT5e, to RJ45 Plug
7-106 870 595-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", CAT5e, to RJ45 Plug
7-105 870 595-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", CAT5e, to RJ45 Plug
7-105 870 595-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", CAT5e, to RJ45 Plug

** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

64 Position TriPaddle Signal Modules

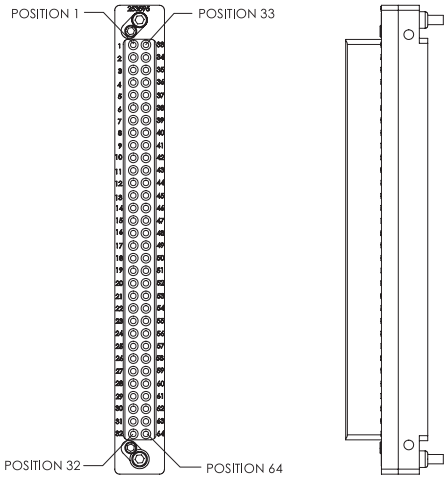
Module Specifications

Receiver Material	Black PPS
Receiver Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 220°C
ITA Material	PBT
ITA Temperature	Operating • −40° C to 125° C Non Operating • −40° C to 140°C
Available Contact Positions	64
Module Slots Needed	1

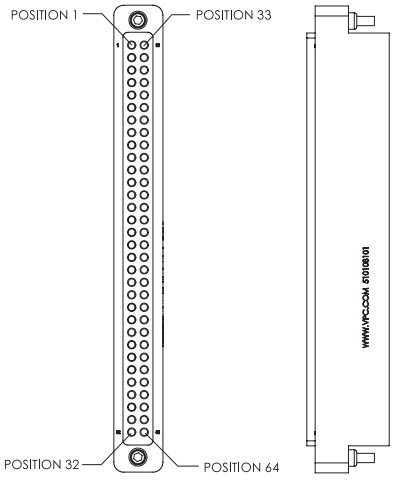
TECH TIP

Please see Tech Tip #12 to learn how to extract contacts from the TriPaddle Receiver Modules.

64 Position TriPaddle Modules • ITA and Receiver



RCV • Part # 510 104 134



ITA • Part # 510 108 101

Part #	Description	Contacts Used
64 POSITION RECEIVER MODULE AND STRAIN RELIEF		
510 104 134	Signal Module, Receiver, TriPaddle, 64 Position	610 110 101/104/128/167
510 109 116	Strain Relief Plate for Select Receiver Modules	
64 POSITION ITA MODULE AND STRAIN RELIEF		
510 108 101	Signal Module, ITA, TriPaddle, 64 Position	610 110 108/113/129/169
510 109 296	Strain Relief Plate for ITA Modules	

** Contacts are not included unless otherwise noted.*

96 Position TriPaddle Signal Modules

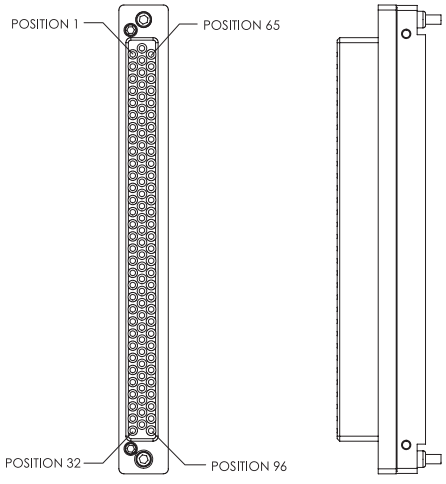
Module Specifications

Receiver Material	Black PPS
Receiver Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 220° C
ITA Material	Black PPS
ITA Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 220° C
Available Contact Positions	96
Module Slots Needed	1

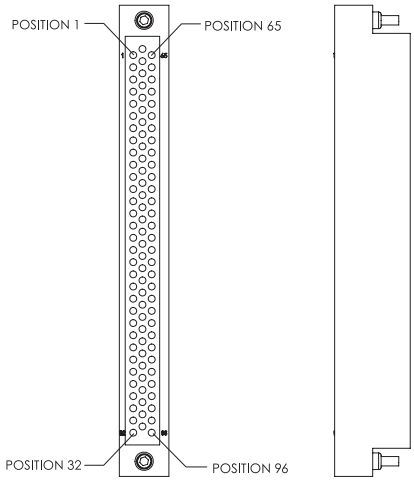
TECH TIP

Please see Tech Tip #12 to learn how to extract contacts from the TriPaddle Receiver Modules.

96 Position TriPaddle Modules • ITA and Receiver



RCV • Part # 510 104 136



ITA • Part # 510 108 126

Part #	Description	Contacts Used
96 POSITION RECEIVER MODULE AND STRAIN RELIEF		
510 104 136	Signal Module, Receiver, TriPaddle, 96 Position	610 110 101/104/128/167
510 109 116	Strain Relief Plate for Select Receiver Modules	
96 POSITION ITA MODULE AND STRAIN RELIEF		
510 108 126	Signal Module, ITA, TriPaddle, 96 Position	610 110 108/113/129/169
510 109 296	Strain Relief Plate for ITA Modules	

** Contacts are not included unless otherwise noted.*

256 Position TriPaddle Signal Modules

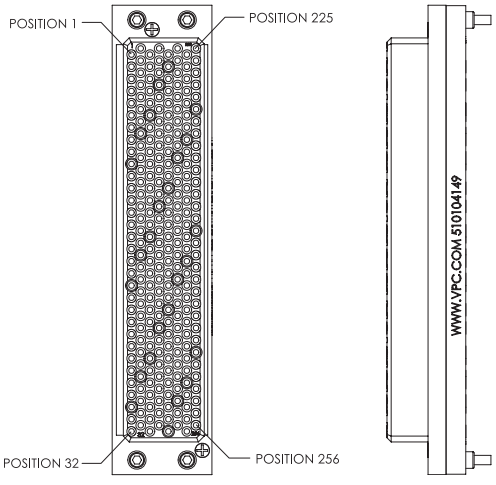
Module Specifications

Receiver Material	Black PPS
Receiver Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 220° C
ITA Material	Black-LCP
ITA Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 225° C
Available Contact Positions	256
Module Slots Needed	2

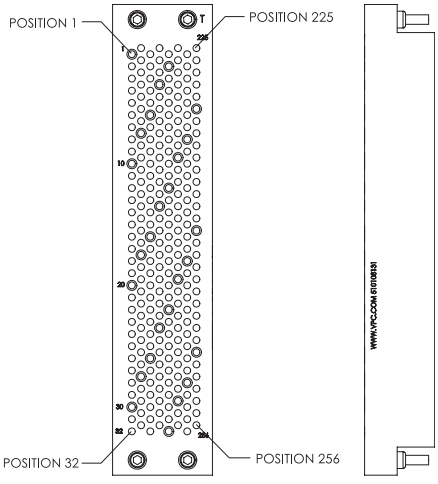
TECH TIP

Please see Tech Tip #12 to learn how to extract contacts from the TriPaddle Receiver Modules.

256 Position TriPaddle Modules • ITA and Receiver



RCV • Part # 510 104 149



ITA • Part # 510 108 131

Part #	Description	Contacts Used
256 POSITION RECEIVER MODULE AND STRAIN RELIEF		
510 104 149	Signal Module, Receiver, TriPaddle, 256 Position	610 110 101/104/128/167
510 109 116	Strain Relief Plate for Select Receiver Modules	
256 POSITION ITA MODULE AND STRAIN RELIEF		
510 108 131	Signal Module, ITA, TriPaddle, 256 Position	610 101 108/113/129/169
510 109 296	Strain Relief Plate for ITA Modules	

TriPaddle Contact Tools

Crimp Tool Part # 910 101 102 and Locator Part # 910 104 116 and 910 104 118 are used to crimp TriPaddle contacts to 14–16 AWG wire.

Part # 910 101 102

Locator Part # 910 104 127 and Crimp Tool Part # 910 101 103 are used to crimp TriPaddle Receiver contacts to 20–28 AWG wire.

Part # 910 104 127

Locator Part # 910 104 107 and Crimp Tool Part # 910 101 103 are used to crimp TriPaddle ITA contacts to 20–28 AWG wire.

Part # 910 104 107

Extraction Tool Part # 910 110 102 is used to extract Receiver and ITA TriPaddle contacts.

Part # 910 110 102

Part #	Description	Used on Contact
CRIMP TOOLS		
910 101 102	Tool, Crimp, 10 Amp TriPaddle Signal/Thermocouple, Receiver and ITA	610 110 129/113 133/113 134
910 101 103	Tool, Crimp for Signal Wiring, Receiver and ITA	610 101 108/110 169
LOCATORS		
910 104 127	Tool, Locator with Wire Stop	610 110 101/167
910 104 107	Tool, Locator, Signal	610 110 108/169
910 104 116	Tool, Locator, Receiver, TriPaddle, 14 AWG	610 110 128
910 104 118	Tool, Locator, ITA, TriPaddle, 14 AWG	610 110 129
EXTRACTION TOOL		
910 110 102	Tool, Extraction, Receiver and ITA, Signal/Thermocouple	

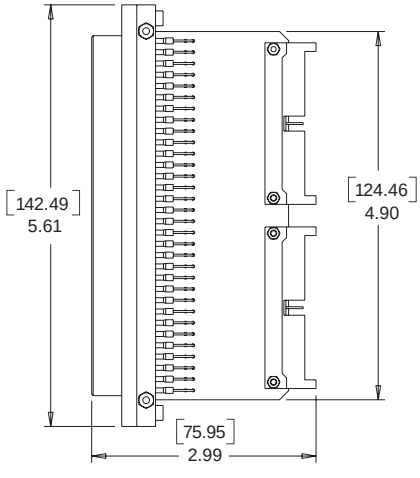
Visit vpc.com for complete instructions on how to use these tools.

TriPaddle 64 Position PCB Adapters

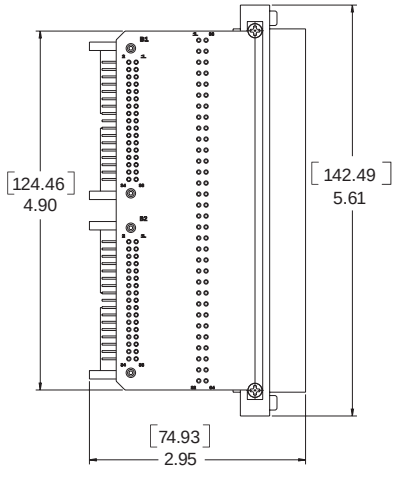
Module Specifications

Current Rating	1 Amp @ 150 V RMS
Temperature	–55° C to 105° C
Termination Resistance	50 mOhms typical
Insulation Resistance	1000 MOhms Min.
DWV	500 V RMS
Connector 1	34 Pin Ribbon Cable
Connector 2	34 Pin Ribbon Cable
Module Slots Needed	1

64 Position TriPaddle PCB Adapters • ITA and Receiver



RCV • Part # 510 104 128



ITA • Part # 510 108 140

Part #	Description

64 POSITION RECEIVER PCB ADAPTER

510 104 128 PCB Adapter, Receiver, TriPaddle, 64 Position, to PCB-Mounted 2x34 pin (BERG 65496-019) Connectors

64 POSITION ITA PCB ADAPTER

510 108 140 PCB Adapter, ITA, TriPaddle, 64 Position, to PCB-Mounted 2x34 pin (BERG 65496-019) Connectors

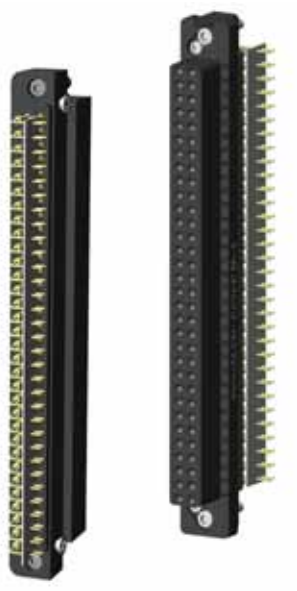
TriPaddle 64 Position Right Angle Contact Modules

Module Specifications

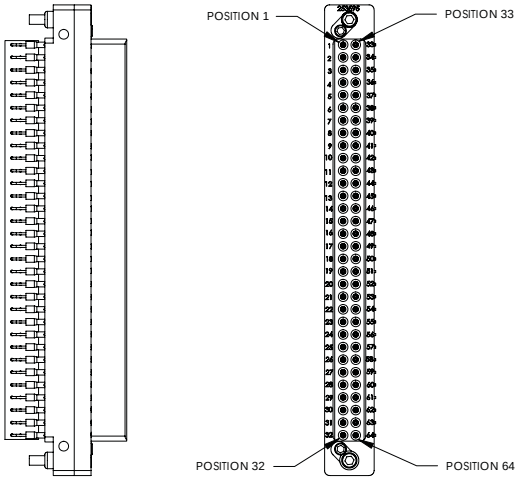
Receiver and ITA Material	Black PPS
Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 220°C
Available Contact Positions	64
Module Slots Needed	1

TECH TIP

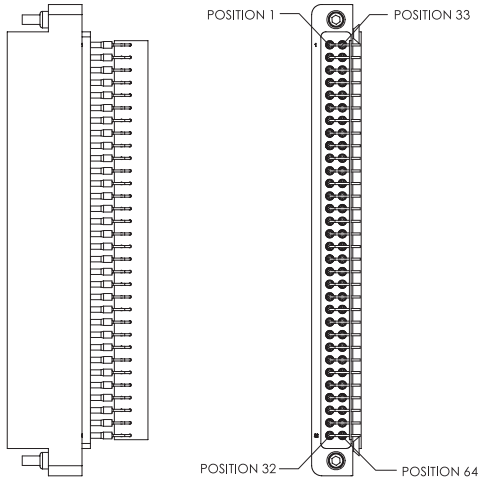
Please see Tech Tip #14 for the PCB layout for this module.



64 Position TriPaddle Right Angle Contact Modules • ITA and Receiver



RCV • Part # 510 104 187



ITA • Part # 510 108 112

Part #	Description

64 POSITION RECEIVER RIGHT ANGLE CONTACT MODULE

510 104 187 Signal Module, Receiver, TriPaddle, 64 Position with Right Angle Contacts for custom PCB Mounting

64 POSITION ITA RIGHT ANGLE CONTACT MODULE

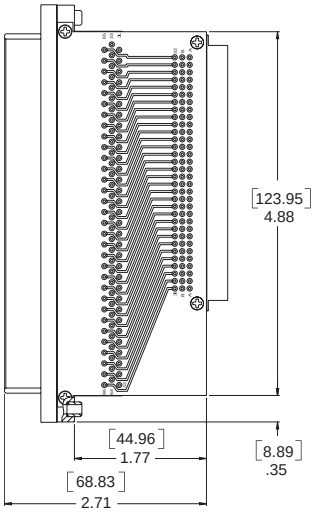
510 108 112 Signal Module, ITA, TriPaddle, 64 Position with Right Angle Contacts for custom PCB Mounting

TriPaddle 96 Contact PCB Adapters

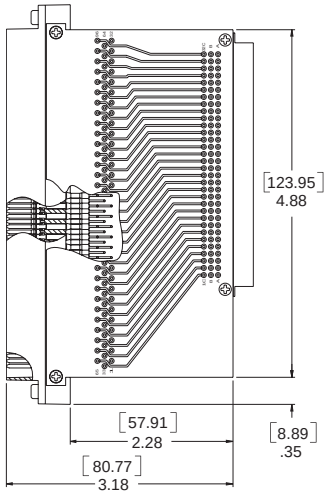
Module Specifications

Current Rating	3 Amp @ 150 V RMS
Temperature	–55° C to 125° C
Termination Resistance	5 mOhms typical
Insulation Resistance	1000 MOhms
DWV	500 V RMS Min.
Connector 1	96 Pin Male Din Connector
Module Slots Needed	1

96 Position TriPaddle PCB Adapters • ITA and Receiver



RCV • Part # 510 104 139



ITA • Part # 510 108 148

Part #	Description

96 POSITION RECEIVER PCB ADAPTER

510 104 139 PCB Adapter, Receiver, TriPaddle, 96 Position, to PCB-Mounted 1x96 Male DIN 41612 Connector

96 POSITION ITA PCB ADAPTER

510 108 148 PCB Adapter, ITA, TriPaddle, 96 Position, to PCB-Mounted 1x96 Male DIN 41612 Connector

TriPaddle 96 Position Right Angle Contact Modules

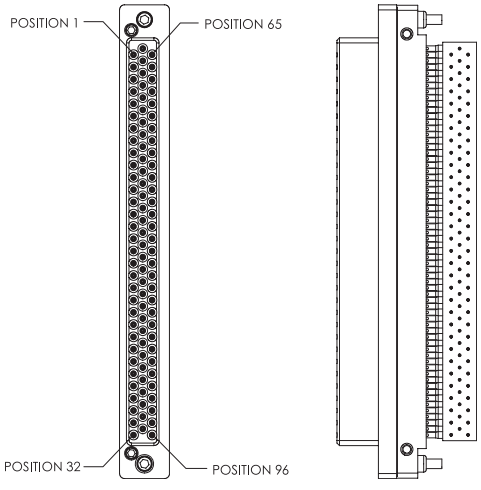
Module Specifications

Receiver and ITA Material	Black PPS
Temperature	Operating • –55° C to 125° C Non Operating • –65° C to 220° C
Available Contact Positions	96
Module Slots Needed	1

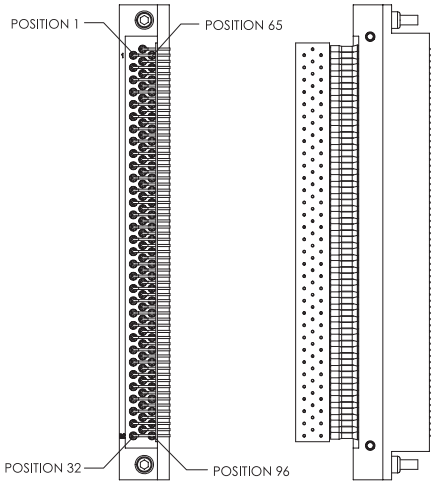
TECH TIP

Please see Tech Tip #14 for the PCB Layout for this module.

96 Position TriPaddle Right Angle Contact Modules • ITA and Receiver



RCV • Part # 510 104 135



ITA • Part # 510 108 125

Part #	Description

96 POSITION RECEIVER RIGHT ANGLE CONTACT MODULE

510 104 135 Signal Module, Receiver, TriPaddle, 96 Position with Right Angle Contacts for custom PCB Mounting

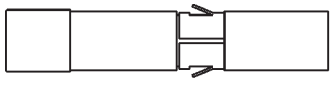
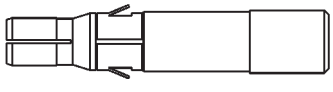
96 POSITION ITA RIGHT ANGLE CONTACT MODULE

510 108 125 Signal Module, ITA, TriPaddle, 96 Position with Right Angle Contacts for custom PCB Mounting

Mini Power Patchcords, Contacts and Tools

Contact Specifications

Operating Voltage and Current	50 Amp Max. Continuous • 8 AWG 40 Amp Max. Continuous • 12 AWG 30 Amp Max. Continuous • 14 AWG 25 Amp Max. Continuous • 16 AWG
Contact Resistance	10 mOhms Max.
Insertion/Extraction Force	Insertion • 5.7 lbs Max. Extraction • 5.0 lbs Max.
Dielectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	1000 MOhms Min.
Contact Body	Female (RCV) – Brass Male (ITA) – BeCu
Contact Plating	Female (RCV) – 50μ" Au over 100μ" Ni Male (ITA) – 50μ" Au over 100μ" Ni
Cycle Life	20,000 Cycles

Mini Power Receiver Patchcord	Mini Power ITA Patchcord
	
Part # 610 116 112	Part # 610 115 124

Part #	Contact Used	Length	AWG	Description	Used in Module
MINI POWER RECEIVER CONTACTS					
610 116 112	Mini Power Contact, Receiver, Solder, 8 AWG (max.), 50μ" Gold				510 104 123/206
610 116 125	Mini Power Contact, Receiver, Crimp, 12–14 AWG, 50μ" Gold, available only in patchcords				510 104 123/206
MINI POWER ITA CONTACTS					
610 115 124	Mini Power Contact, ITA, Solder, 8 AWG (max.), 50μ" Gold				510 108 115/178
610 115 125	Mini Power Contact, ITA, Solder, 8 AWG (max.), 30μ" Gold				510 108 115/178
610 115 130	Mini Power Contact, ITA, Crimp, 12–14 AWG, 50μ" Gold, available only in patchcords				510 108 115/178
MINI POWER RECEIVER AND ITA PATCHCORDS					
7-232 912 000-036	610 116 125	36"	12	Receiver, Single Ended	510 104 123/206
7-232 912 000-072	610 116 125	72"	12	Receiver, Single Ended	510 104 123/206
7-241 912 000-036	610 116 130	36"	12	ITA, Single Ended	510 108 115/178
7-241 912 000-072	610 116 130	72"	12	ITA, Single Ended	510 108 115/178
EXTRACTION TOOL					
910 112 104	Tool, Extraction, Mini Power/Coaxial				

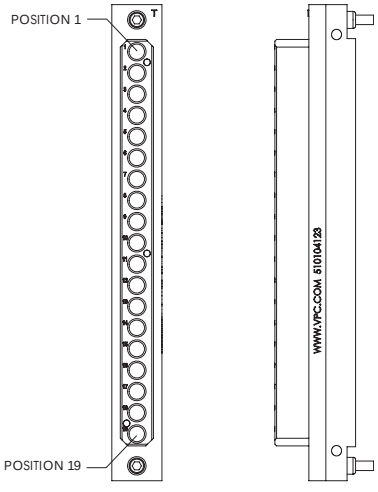
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

19 Position Mini Power Modules

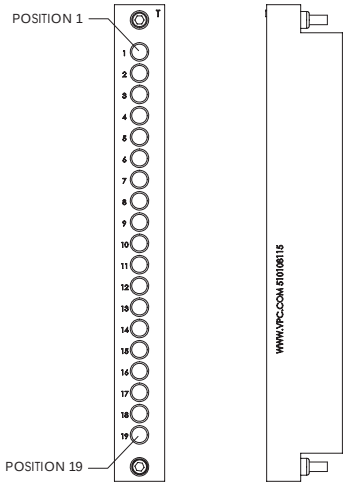
Module Specifications

Receiver Material	G10 Epoxy Glass
Receiver Temperature	Operating • –55° C to 125° C Non Operating • –55° C to 140° C
ITA Material	G10 Epoxy Glass
ITA Temperature	Operating • –55° C to 125° C Non Operating • –55° C to 140° C
Available Contact Positions	19
Module Slots Needed	1

19 Position Mini Power Modules • ITA and Receiver



RCV • Part # 510 104 123



ITA • Part # 510 108 115

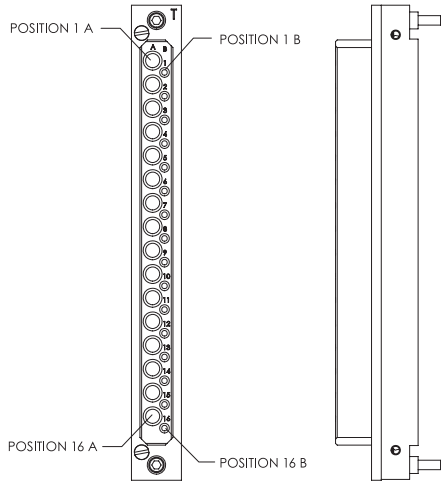
Part #	Description	Contacts Used
RECEIVER MINI POWER MODULES AND STRAIN RELIEF		
510 104 123	Mini Power Module, Receiver, 19 Position	610 116 112
510 109 116	Strain Relief Plate for Select Receiver Modules	
ITA MINI POWER MODULES AND STRAIN RELIEF		
510 108 115	Mini Power Module, ITA, 19 Position	610 115124/125
510 109 296	Strain Relief Plate for ITA Modules	

16/16 Position TriPaddle Signal/Mini Power Modules

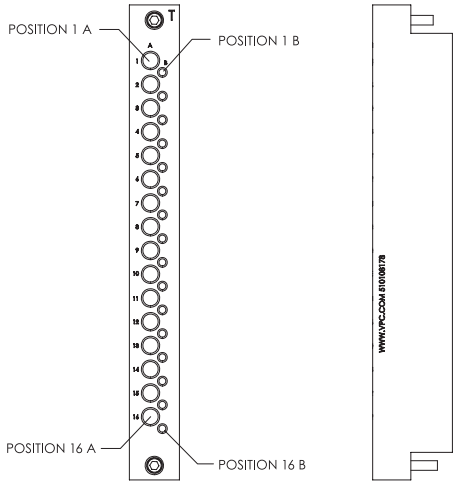
Module Specifications

Receiver Material	Black PPS
Receiver Temperature	Operating • −55° C to 125° C Non-Operating • −65° C to 225°C
ITA Material	Black PPS
ITA Temperature	Operating • −55° C to 125° C Non-Operating • −65° C to 225°C
Available Contact Positions	16 Signal, 16 Mini Power
Module Slots Needed	1

TriPaddle Signal/Mini Power Hybrid Modules • ITA and Receiver



RCV • Part # 510 104 206



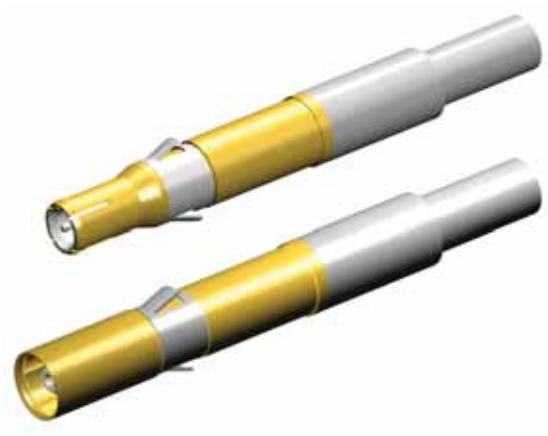
ITA • Part # 510 108 178

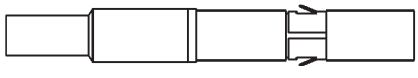
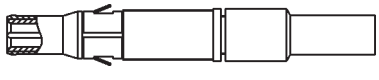
Part #	Description	Contacts Used	
TRIPADDLE SIGNAL/MINI POWER RECEIVER MODULES AND STRAIN RELIEF		TRIPADDLE	MINI POWER
510 104 206	TriPaddle Signal/Mini Power Module, Receiver, 16/16 Position	610 110 101/ 104/128/167	610 116 112
510 109 116	Strain Relief Plate for Select Receiver Modules		
TRIPADDLE SIGNAL/MINI POWER ITA MODULES AND STRAIN RELIEF		TRIPADDLE	MINI POWER
510 108 178	TriPaddle Signal/Mini Power Module, ITA, 16/16 Position	610 110 108/ 113/129/169	610 115 124 610 115 125
510 109 296	Strain Relief Plate for ITA Modules		

50 Ohm Mini Coaxial Patchcords and Contacts

Contact Specifications

Characteristic Impedence	50 Ohms
Frequency Range	DC to 1 GHz
Insertion Loss	1.2 dB @ 1 Ghz 1.02 dB @ 500 Mhz
VSWR	≤ 1.06 @ 1 Ghz
Operating Current	0.5 Amp Max. Continuous
Contact Resistance	5 mOhms Max.
Insertion/Extraction Force	1.5 lbs Max. [0.68 kg]
Dieclectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	1000 mOhms Min.
Contact Body	Female & Male (RCV & ITA) – shield – brass, center conductor – BeCu
Contact Plating	Center conductor – 60μ" Au over 100μ" Ni; Shield – 50μ" Au over 100μ" Ni
Cycle Life	20,000 Cycles



Mini Coaxial Receiver Patchcord	Mini Coaxial ITA Patchcord
	
Part # 610 104 114	Part # 610 103 115

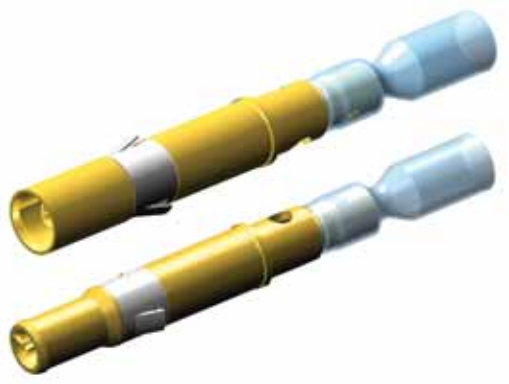
Part #	Contact Used	Length	AWG	Description	Used in Module
MINI COAXIAL RECEIVER CONTACTS					
610 104 114	Mini Coaxial Contact, Receiver, RG316				510 104 120/150/243
610 104 140	Mini Coaxial Contact, Receiver, with two .025" Square Posts for Wire Wrap				510 104 120/150/243
610 104 141	Mini Coaxial Contact, Receiver, RG178				510 104 120/150/243
MINI COAXIAL ITA CONTACTS					
610 103 115	Mini Coaxial Contact, ITA, RG316				510 108 111/132/210
610 103 129	Mini Coaxial Contact, ITA, with two .025" Square Posts for Wire Wrap				510 108 111/132/210
610 103 130	Mini Coaxial Contact, ITA, RG178				510 108 111/132/210
610 103 136	Mini Coaxial Contact, ITA, 24 AWG				510 108 111/132/210
610 103 150	Mini Coaxial Contact, ITA, two .025" Round Posts for PCB, .075 Spacing				510 108 111/132/210
610 103 161	Mini Coaxial Contact, ITA, for Twisted Pair				510 108 111/132/210
MINI COAXIAL RECEIVER AND ITA PATCHCORDS					
7-332 116 000-036	610 104 114	36"	RG316	Receiver, Single Ended	510 104 120/150/243
7-332 144 000-036	610 104 114	36"	SM405	Receiver, Single Ended	510 104 120/150/243
7-334 178 000-036	610 104 141	36"	RG178	Receiver, Single Ended	510 104 120/150/243
7-331 116 000-036	610 103 115	36"	RG316	ITA, Single Ended	510 108 111/132/210
7-331 144 000-036	610 103 115	36"	SM405	ITA, Single Ended	510 108 111/132/210
7-333 178 000-036	610 103 130	36"	RG178	ITA, Single Ended	510 108 111/132/210
7-335 924 000-036	610 103 136	36"	24	ITA, Single Ended	510 108 111/132/210

** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

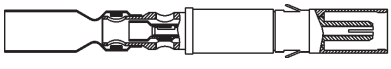
50 Ohm Mini Coaxial Solder Sleeve Patchcords and Contacts

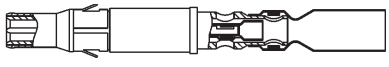
Contact Specifications

Characteristic Impedence	50 Ohms
Frequency Range	DC to 2 GHz
Insertion Loss	≤ .05 dB @ 500 Mhz ≤ −0.3 dB @ 2 GHz
VSWR	≤ 1.2 @ 2 Ghz
Operating Current	0.5 Amp Max. Continuous
Contact Resistance	5 mOhms Max.
Insertion/Extraction Force	1.5 lbs Max. [0.68 kg]
Dieclectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	1000 mOhms Min.
Contact Body	Female & Male (RCV & ITA) – shield – brass, center conductor – BeCu
Contact Plating	Center conductor – 60μ" Au over 100μ" Ni; Shield – RCV • 30μ" Au over 100μ" Ni ITA • 50μ" Au over 100μ" Ni
Cycle Life	20,000 Cycles



Mini Coaxial Solder Sleeve Receiver Patchcord	Mini Coaxial Solder Sleeve ITA Patchcord





Part # 610 104 142	Part # 610 103 140

Part #	Contact Used	Length	Wire	Description	Used in Module
50 OHM MINI COAX SOLDER SLEEVE RECEIVER CONTACT					
610 104 142	Mini Coaxial Contact, Receiver, Solder Sleeve, RG316 and RG178				510 104 120
50 OHM MINI COAX SOLDER SLEEVE ITA CONTACT					
610 103 140	Mini Coaxial Contact, ITA, Solder Sleeve, RG316 and RG178				510 108 111
50 OHM MINI COAX SOLDER SLEEVE RECEIVER AND ITA PATCHCORDS					
7-338 116 000-036	610 104 142	36"	RG316	Receiver, Single Ended	510 104 120/150
7-338 116 000-072	610 104 142	72"	RG316	Receiver, Single Ended	510 104 120/150
7-338 144 000-036	610 104 142	36"	SM405	Receiver, Single Ended	510 104 120/150
7-338 144 000-072	610 104 142	72"	SM405	Receiver, Single Ended	510 104 120/150
7-338 178 000-036	610 104 142	36"	RG178	Receiver, Single Ended	510 104 120/150
7-338 178 000-072	610 104 142	72"	RG178	Receiver, Single Ended	510 104 120/150
7-339 116 000-036	610 103 140	36"	RG316	ITA, Single Ended	510 108 111/132
7-339 116 000-072	610 103 140	72"	RG316	ITA, Single Ended	510 108 111/132
7-339 144 000-036	610 103 140	36"	SM405	ITA, Single Ended	510 108 111/132
7-339 144 000-072	610 103 140	72"	SM405	ITA, Single Ended	510 108 111/132
7-339 178 000-036	610 103 140	36"	RG178	ITA, Single Ended	510 108 111/132
7-339 178 000-072	610 103 140	72"	RG178	ITA, Single Ended	510 108 111/132

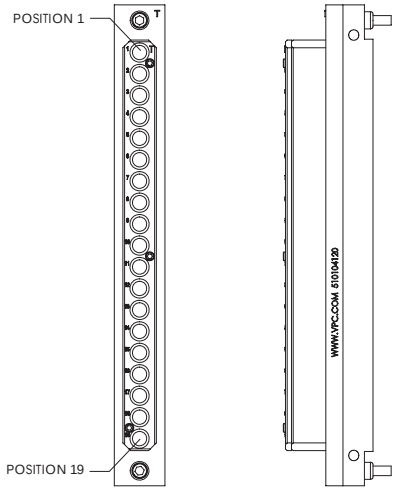
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

19 Position Mini Coaxial Modules

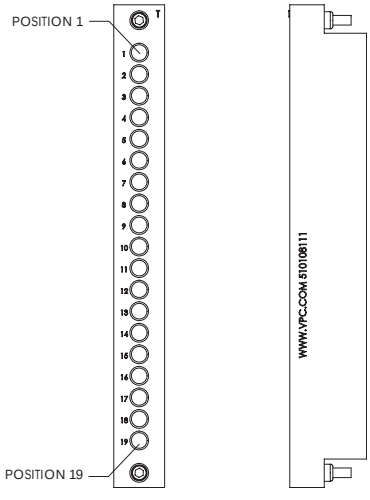
Module Specifications

Receiver Material	Black PPS
Receiver Temperature	Operating • –55° C to 125° C Non Operating • –65° C to 225°C
ITA Material	Black PPS
ITA Temperature	Operating • –55° C to 125° C Non Operating • –65° C to 225°C
Available Contact Positions	19
Module Slots Needed	1

19 Position Mini Coaxial Modules • ITA and Receiver



RCV • Part # 510 104 120



ITA • Part # 510 108 111

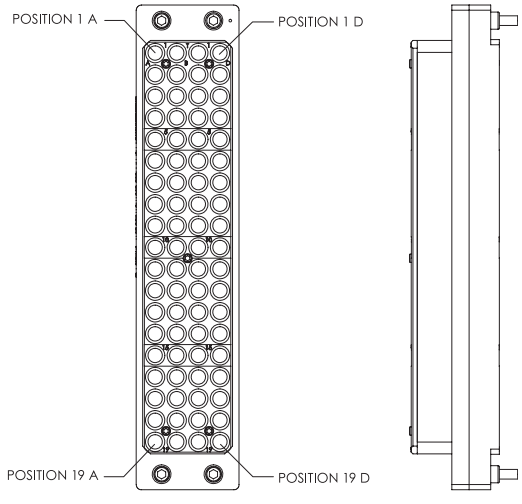
Part #	Description	Contacts Used
RECEIVER MINI COAXIAL MODULE AND STRAIN RELIEF		
510 104 120	Mini Coaxial Module, Receiver, 19 Position	610 104 114/140/141/142
510 109 116	Strain Relief Plate for Select Receiver Modules	
ITA MINI COAXIAL MODULE AND STRAIN RELIEF		
510 108 111	Mini Coaxial Module, ITA, 19 Position	610 103 115/129/130/136/140/150/161
510 109 296	Strain Relief Plate for ITA Modules	

76 Position Mini Coaxial Modules

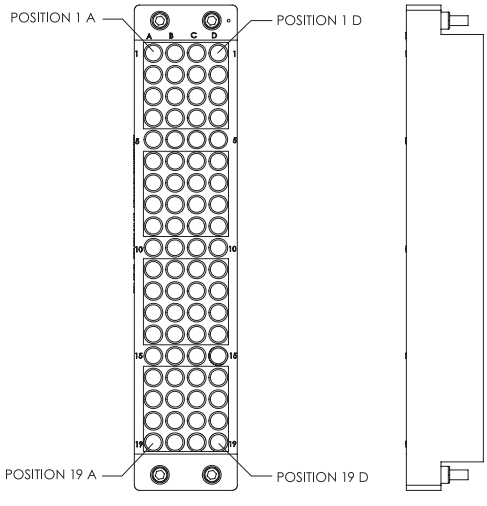
Module Specifications

Receiver Material	Black PPS
Receiver Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 225° C
ITA Material	Black PPS
ITA Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 225° C
Available Contact Positions	76
Module Slots Needed	2

76 Position Mini Coaxial Modules • ITA and Receiver



RCV • Part # 510 104 150



ITA • Part # 510 108 132

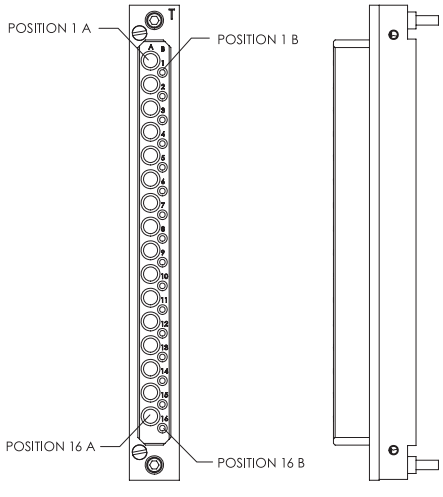
Part #	Description	Contacts Used
RECEIVER MINI COAXIAL MODULE AND STRAIN RELIEF		
510 104 150	Mini Coaxial Module, Receiver, 76 Position	610 104 114/140/141/142
510 109 298	Strain Relief Plate for Select Receiver Modules	
ITA MINI COAXIAL MODULE AND STRAIN RELIEF		
510 108 132	Mini Coaxial Module, ITA, 76 Position	610 103 115/129/130/136/140/150/161
510 109 296	Strain Relief Plate for ITA Modules	

16/16 Position TriPaddle Signal/Mini Coaxial Modules

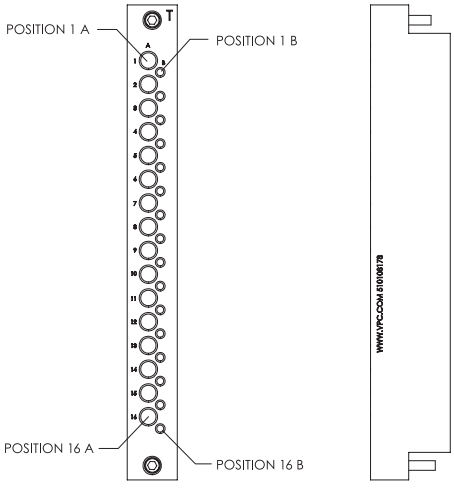
Module Specifications

Receiver Material	Black PPS
Receiver Temperature	Operating • –55° C to 125° C Non-Operating • –65° C to 140° C
ITA Material	Black PPS
ITA Temperature	Operating • –55° C to 125° C Non-Operating • –65° C to 225° C
Available Contact Positions	16 Signal, 16 Mini Coax
Module Slots Needed	1

TriPaddle Signal/Mini Coaxial Hybrid Modules • ITA and Receiver



RCV • Part # 510 104 243



ITA • Part # 510 108 210

Part #	Description	Contacts Used
TRIPADDLE SIGNAL/MINI COAXIAL RECEIVER MODULES AND STRAIN RELIEF		
510 104 243	TriPaddle Signal/Mini Coax Module, Receiver, 16/16 Position	610 104 114/140/141/142 610 110 101/104/128/167
510 109 116	Strain Relief Plate for Select Receiver Modules	
TRIPADDLE SIGNAL/MINI COAXIAL ITA MODULES AND STRAIN RELIEF		
510 108 210	TriPaddle Signal/Mini Coax Module, ITA, 16/16 Position	610 103 115/129/130/136/140/150/161 610 110 108/113/129/169
510 109 296	Strain Relief Plate for ITA Modules	

Mini Coaxial Contact Tools

Crimp Tool Part # 910 101 115 is used to crimp the crimp ring to the contact of the Mini Coax contacts.

Part # 910 101 115

Crimp Tool Part # 910 101 118 and Locator Part # 910 104 128 are used to crimp 24 AWG wire to contact Part # 610 103 136.

Part # 910 104 128

Solder Kit Part # 910 121 144 includes a Raychem Holding Fixture and Adapter which provides a holding fixture for soldering Mini Coax Solder Sleeve contacts.

Part # 910 121 144

Center Conductor Forming Tool Part # 910 121 119 forms or closes the center conductor pin on the receiver Mini Coax contact. It is used before patchcord assembly.

Part # 910 121 119

Part #	Description	For Contact
CRIMP TOOLS		
910 101 115	Tool, Crimp, Mini Coaxial Contacts	
910 101 118	Tool, Crimp, Mini Coaxial Contacts, ITA, 24 AWG Wire	610 103 136/161
LOCATOR		
910 104 128	Tool, Locator, Mini Coaxial Contacts, 24 AWG Wire	610 103 136/161
EXTRACTION TOOL		
910 112 104	Tool, Extraction, Mini Power/Coaxial	
MISCELLANEOUS TOOLS		
910 121 144	Solder Kit for Solder Sleeve Mini Coaxial Contact includes Raychem Holding Fixture (AD-1319) and Adapter (Part # 910 121 149)	
910 121 149	Adapter for use with Raychem Holding Fixture (AD-1319-29)	
910 121 160	Steinel Heat Gun with Nozzle – 110V	
910 121 167	Steinel Heat Gun with Nozzle – 220V	
910 121 119	Tool, Center Conductor Forming Receiver (before assembly)	610 104 114/141

Mini Coaxial Contact Tools

Weight Gauge Kit Part # 910 121 131 is used to form the receiver contacts so the engagement forces are exact.

Part # 910 121 131

Outer Shield Conductor Expanding Tool Part # 910 121 142 is used to expand the outer shield of the ITA Mini Coax contact.

Part # 910 121 142

Center Conductor Enlarging Tool Part # 910 121 143 is used to expand the center conductor of the receiver Mini Coax contact.

Part # 910 121 143

Inspection Depth Gauge Part # 910 121 156 is used to verify the depth setting of the center conductor of the Mini Coax contact.

Part # 910 121 156

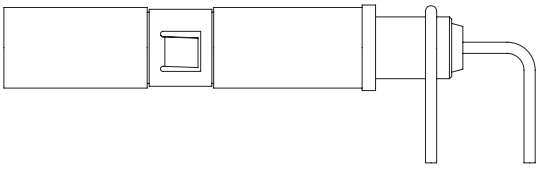
Part #	Description	For Contact
MINI COAXIAL FORMING TOOLS		
910 121 126	Tool, Outer Shield Conductor Forming (ITA–forms or closes shield)	610 103 115/129/130/140
910 121 142	Tool, Outer Shield Conductor Expanding	610 103 115/129/130/140
910 121 143	Tool, Center Conductor Enlarging, Receiver	610 104 114/141
MINI COAXIAL INSPECTION TOOLS		
910 121 131	Tool, Weight Gage Kit for Mini Coaxial Contacts, Receiver	610 104 114/140/141/142
910 121 155	Tool, Weight Gage Kit for Mini Coaxial Contacts, ITA	610 103 115/129/130/140
910 121 156	Tool, Inspection Depth Gage for Mini Coaxial Contacts, Receiver	610 104 114/140/141/142
910 121 157	Tool, Inspection Depth Gage for Mini Coaxial Contacts, ITA	610 103 115/129/130/140

** Complete instructions on how to use these tools can be found at vpc.com in the Mini Coaxial User's Manual.*

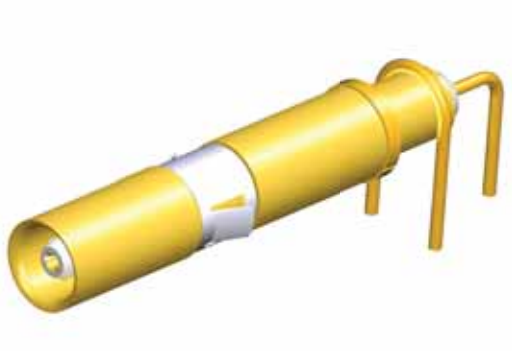
Right Angle Mini Coaxial Contact and Module

Contact Specifications

Characteristic Impedence	50 Ohms
Frequency Range	DC to 1 GHz
Insertion Loss	−0.885 db @ 1 GHz
VSWR	1.445 @ 1 GHz
Operating Current	0.5 Amps Max. Continuous
Contact Resistance	5 mOhms Max.
Mating Force	1.5 lbs Max. [0.68 Kg]
Dieclectic Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	1000 mOhms Min.
Contact Body	Shield - Brass Center Conductor - BeCu
Contact Plating	Shield - 50μ" Au over 100μ" Ni Center Conductor - 60μ" Au over 100μ" Ni
Cycle Life	20,000 Cycles



Part # 610 104 160



Right Angle Mini Coaxial Receiver
Part # 610 104 160

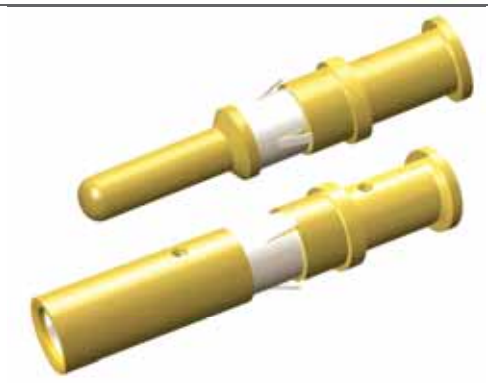
19 Position Right Angle Coaxial Module (Customer Supplied PCB)
Part # 510 104 280

Part #	Description	Used in Module
RIGHT ANGLE MINI COAXIAL CONTACT		
610 104 160	Mini Coaxial Contact, Receiver, Right Angle Posts for PCB Mount	510 104 280
MINI COAXIAL MODULE		
510 104 280	Mini Coaxial Module, Receiver, 19 Positions, Loaded with Right Angle Contacts (610 104 160)	

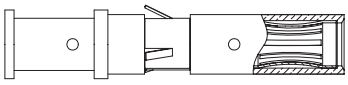
Micro Power Contacts and Patchcords

Contact Specifications

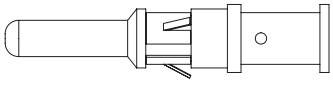
Current Rating	22 Amp Continuous (See T-Rise Graph Below)
Dielectric Withstanding Voltage (DWV)	1500 VDC Min.
Contact Resistance	1.5 mOhms Max.
Mating Force	2.0 lbs Max. [0.91 kg]
Cycle Life	10,000 Cycles



Micro Power Contacts

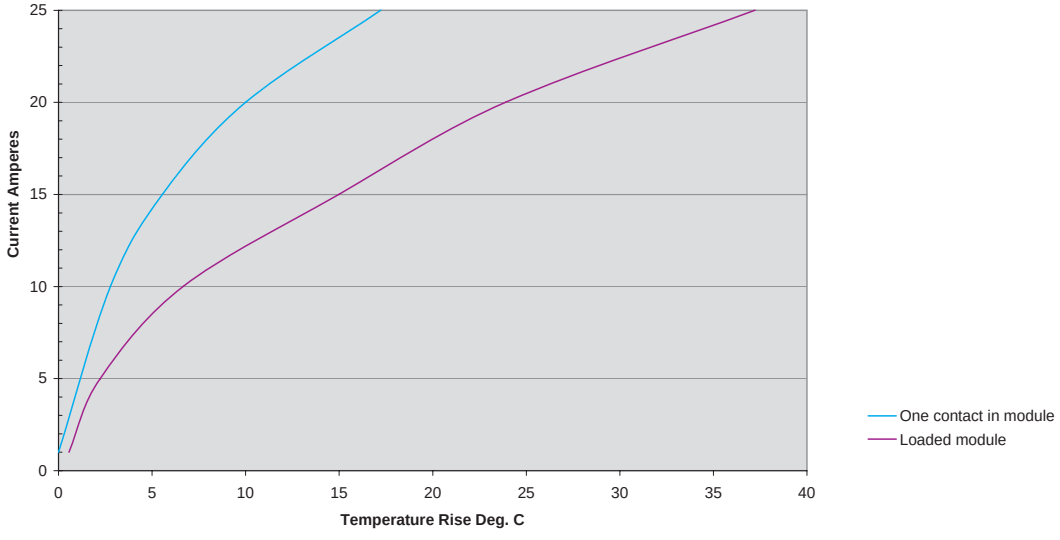


Part # 610 142 101



Part # 610 143 101

Micro Power Contact 610 142 101/610 143 101
T-Rise Test (12 AWG)



Part #	Contact Used	Length	Wire	Description

MICRO POWER RECEIVER CONTACTS

610 142 101	Micro Power Contact, Receiver, 12 AWG, Crimp
610 142 102	Micro Power Contact, Receiver, PCB Mount

MICRO POWER ITA CONTACTS

610 143 101	Micro Power Contact, ITA, 12 AWG, Crimp

MICRO POWER RECEIVER AND ITA PATCHCORDS

7-252 912 000-036	610 142 101	36"	12 AWG	Receiver, Single Ended
7-252 912 000-072	610 142 101	72"	12 AWG	Receiver, Single Ended
7-251 912 000-036	610 143 101	36"	12 AWG	ITA, Single Ended
7-251 912 000-072	610 143 101	72"	12 AWG	ITA, Single Ended

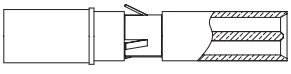
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

Micro Coaxial Contacts and Patchcords

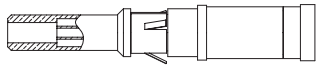
Contact Specifications

Characteristic Impedence	50 Ohm 75 Ohm • for RG 179
Frequency Range	DC – 3 GHz DC – 1 GHz • for RG 179
Contact Isolation	–90 dB minimum
VSWR	1.22 @ 3 GHz
Mating Force	1.5 lbs Max. [0.68 kg]
Insertion Loss	– √f(GHz) x .06 dB
Dielectric Withstanding Voltage (DWV)	800 V RMS
Cycle Life	10,000 Cycles

Micro Coaxial Contacts

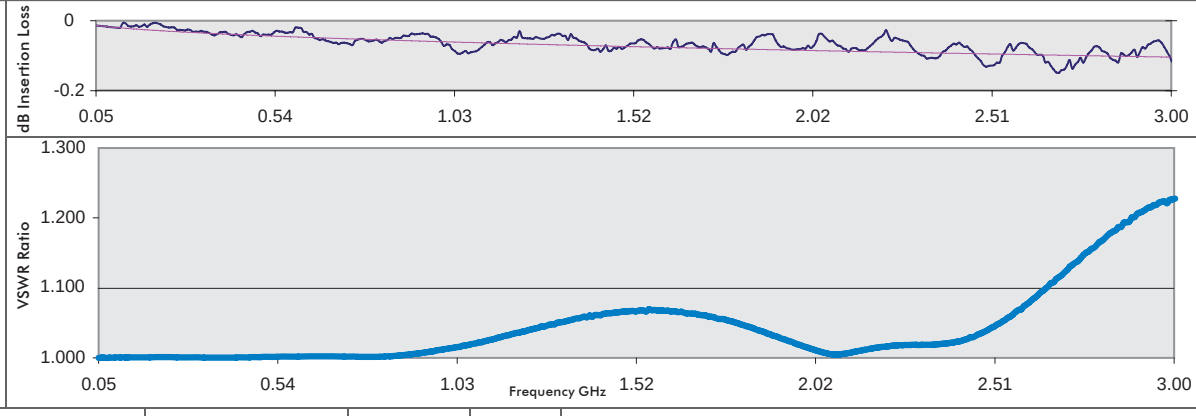


Part # 610 140 XXX



Part # 610 141 XXX

Micro Coax RF Response
50 Ohm impedance



Part #	Contact Used	Length	Wire	Description

MICRO COAXIAL RECEIVER CONTACTS

610 140 101	Micro Coaxial Contact, Receiver, RG 316, Crimp
610 140 102	Micro Coaxial Contact, Receiver, RG 178, Crimp
610 140 103	Micro Coaxial Contact, Receiver, RG 179, Crimp

MICRO COAXIAL ITA CONTACTS

610 141 101	Micro Coaxial Contact, ITA, RG 316, Crimp
610 141 102	Micro Coaxial Contact, ITA, RG 178, Crimp
610 141 103	Micro Coaxial Contact, ITA, RG 179, Crimp

MICRO COAXIAL RECEIVER PATCHCORDS

7-362 116 000-036	610 140 101	36"	RG316	Receiver, Single Ended (3 GHz)
7-364 178 000-036	610 140 102	36"	RG178	Receiver, Single Ended (3 GHz)
7-366 179 000-036	610 140 103	36"	RG179	Receiver, Single Ended (1 GHz), 75 Ohm

MICRO COAXIAL ITA PATCHCORDS

7-361 116 000-036	610 141 101	36"	RG316	ITA, Single Ended (3 GHz)
7-363 178 000-036	610 141 102	36"	RG178	ITA, Single Ended (3 GHz)
7-365 179 000-036	610 141 103	36"	RG179	ITA, Single Ended (1 GHz), 75Ohm

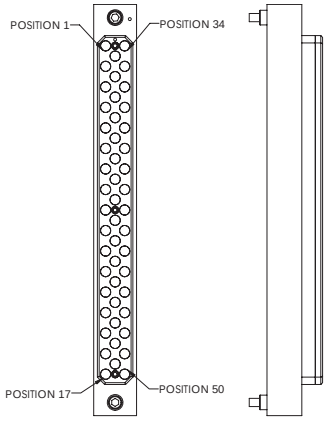
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

50 Position Micro Power and Micro Coaxial Modules

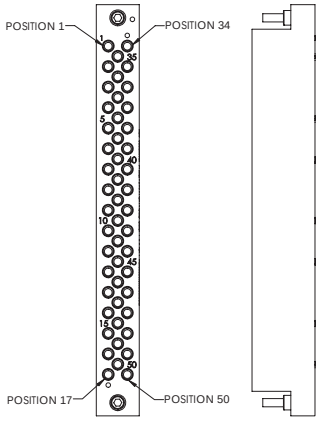
Module Specifications

Receiver Material	G10 Epoxy Glass
Receiver Temperature	Operating • –55° C to 125° C Non Operating • –55° C to 140° C
ITA Material	G10 Epoxy Glass
ITA Temperature	Operating • –55° C to 125° C Non Operating • –55° C to 140° C
Available Contact Positions	50
Module Slots Needed	1

50 Position Micro Power Modules • ITA and Receiver



RCV • Part # 510 104 267



ITA • Part # 510 108 262

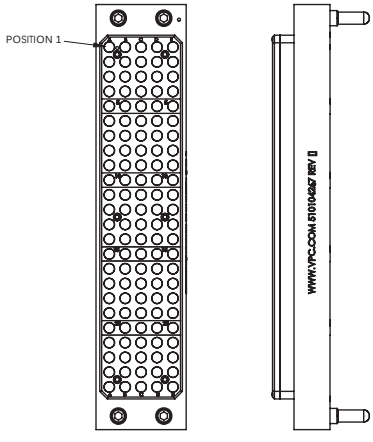
Part #	Description	Contacts Used
50 POSITION MICRO POWER RECEIVER MODULE		
510 104 267	Micro Power and Micro Coaxial Module, Receiver, 50 Position	610 140 101/102/103 610 142 101/102
510 109 298	Strain Relief Plate for Receiver Modules	
50 POSITION MICRO POWER ITA MODULE		
510 108 262	Micro Power and Micro Coaxial Module, ITA, 50 Position	610 141 101/102/103 610 143 101
510 109 296	Strain Relief Plate for ITA Modules	

120 Position Micro Power and Micro Coaxial Modules

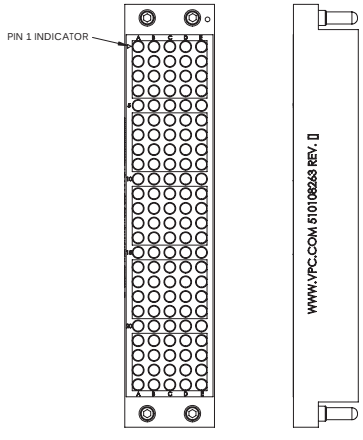
Module Specifications

Receiver Material	G10 Epoxy Glass
Receiver Temperature	Operating • −55° C to 125° C Non Operating • −55° C to 140° C
ITA Material	G10 Epoxy Glass
ITA Temperature	Operating • −55° C to 125° C Non Operating • −55° C to 140° C
Available Contact Positions	120
Module Slots Needed	2

120 Position Micro Power Modules • ITA and Receiver



RCV • Part # 510 104 270



ITA • Part # 510 108 263

Part #	Description	Contacts Used
120 POSITION MICRO COAXIAL RECEIVER MODULE		
510 104 270	Micro Power and Micro Coaxial Module, Receiver, 120 Postion	610 140 101/102/103 610 142 101/102
510 109 298	Strain Relief Plate for Receiver Modules	
120 POSITION MICRO COAXIAL ITA MODULE		
510 108 263	Micro Power and Micro Coaxial Module, ITA, 120 Position	610 141 101/102/103 610 143 101
510 109 296	Strain Relief Plate for ITA Modules	

Micro Power and Micro Coaxial Contact Tools

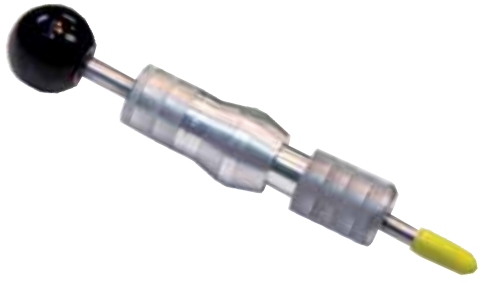
Part # 910 101 102

Crimp Tool 910 101 102 and a Locator are used to crimp Micro Power contacts to 12 AWG wire.

Part # 910 101 131-RG178
Part # 910 101 132-RG179/316

Crimp tool is used to crimp the crimp ring to the contact of the Micro Coax contacts.

Part # 910 112 123



Extraction Tool is used to extract Receiver and ITA Micro Power and Micro Coax contacts.

Part # 910 121 179-Receiver
Part # 910 121 180-ITA

Inspection Depth Gauge is used to verify the depth setting of the center conductor of the Micro Coax contact.

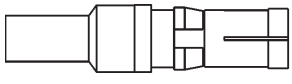
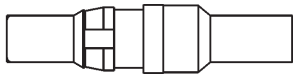
Part #	Description	Used in Contact
CRIMP TOOLS		
910 101 102	Tool, Crimp, 10 Amp TriPaddle, Thermocouple and Micro Power Contacts, Receiver and ITA, Locator Required	610 142 101 & 610 143 101
910 101 131	Tool, Crimp, Micro Coaxial RG178, Receiver and ITA	610 140 102 & 610 141 102
910 101 132	Tool, Crimp, Micro Coaxial RG179 & RG316, Receiver and ITA	610 140 101/103, 610 141 101/103
910 104 144	Tool, Locator, Micro Power, ITA	610 143 101
910 104 145	Tool, Locator, Micro Power, Receiver	610 142 101
INSPECTION TOOLS		
910 121 179	Tool, Inspection Depth Gage, Micro Coaxial, Receiver	610 140 101/102/103
910 121 180	Tool, Inspection Depth Gage, Micro Coaxial, ITA	610 141 101/102/103
EXTRACTION TOOL		
910 112 123	Tool, Extraction, Micro Power/Micro Coaxial Contacts	610 140 101/102/103, 610 141 101/102/103, 610 142 102 & 610 143 101

Visit vpc.com for complete instructions on how to use these tools.

75 Ohm Coaxial Patchcords and Contacts

Contact Specifications

Characteristic Impedance	75 Ohms
Frequency Range	DC to 2 GHz
Contact Resistance	Center contact – 5 mOhms Outer shield – 3 mOhms
Insertion Loss	>.5 dB @ 500 MHz
Dielectric Withstanding Voltage (DWV)	800 VRMS
Operating Current	3.0 Amp Max. Continuous
VSWR	≤ 1.31 @ 2 GHz
Insulation Resistance	1000 MOhms Min.
Contact Body	Female & Male Shield • Brass Center Contact • BeCu
Insertion/Extraction Force	4.0 lbs Max. [1.81 kg]
Contact Plating	Center Conductor Shield • 30μ" Au over 100μ" Ni
Cycle Life	20,000 Cycles

75 Ohm Coaxial Receiver Patchcord	75 Ohm Coaxial ITA Patchcord
	
Part # 610 104 157	Part # 610 103 169

Part #	Contact Used	Length	AWG	Description	Used in Module
75 OHM COAXIAL RECEIVER CONTACT					
610 104 157	Coaxial Contact, Receiver, 75 Ohm, RG179, Crimp				510 104 249
75 OHM COAXIAL ITA CONTACT					
610 103 169	Coaxial Contact, ITA, 75 Ohm, RG179, Crimp				510 108 179
75 OHM COAXIAL RECEIVER AND ITA PATCHCORDS					
7-382 179 000-036	610 104 157	36"	RG179	Receiver, Single Ended	510 104 249
7-382 179 000-072	610 104 157	72"	RG179	Receiver, Single Ended	510 104 249
7-381 179 000-036	610 103 169	36"	RG179	ITA, Single Ended	510 108 179
7-381 179 000-072	610 103 169	72"	RG179	ITA, Single Ended	510 108 179

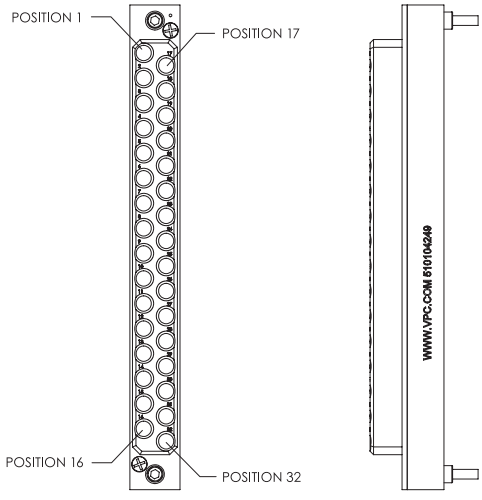
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

32 Position 75 Ohm Coaxial Modules

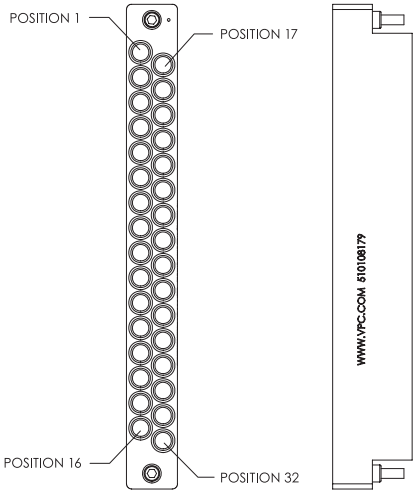
Module Specifications

Receiver Material	G10 Epoxy Glass
Receiver Temperature	Operating • –55° C to 125° C Non Operating • –55° C to 140° C
ITA Material	Black PPS
ITA Temperature	Operating • –55° C to 125° C Non Operating • –65° C to 220° C
Available Contact Positions	32
Module Slots Needed	1

32 Position 75 Ohm Coaxial Modules • ITA and Receiver



RCV • Part # 510 104 249



ITA • Part # 510 108 179

Part #	Description	Contacts Used
75 OHM COAXIAL RECEIVER MODULE		
510 104 249	Coaxial Module, Receiver, 75 Ohm, 32 Position	610 104 157
20 GHZ/75 OHM COAXIAL ITA MODULE		
510 108 179	Coaxial Module, ITA, 20 GHz, 75 Ohm and 75 Ohm HD, 32 Position	610 103 169 610 102 132

75 Ohm Coaxial Contact Tools

Part # 910 102 106 consists of 2 tools needed to install the cabling into the contact. One tool is used to crimp the center pin and the other is used to crimp the ferrule over the contact.

Part # 910 102 106

This Hex Crimp Tool is used to crimp the ferrule on the 75 Ohm receiver and ITA contacts. It is also included in the Tool Kits, Part # 910 102 106 and Part # 910 102 107.

Part # 910 104 139

Part #	Description
CRIMP TOOLS	
910 102 106	Tool Kit, Coaxial, Receiver, for 75 Ohm Includes: Crimp Tool and Locator for Center Contact (Part # 910 104 137), and Hex Crimp Tool for Outer Shield (Part # 910 104 139)
910 102 107	Tool Kit, Coaxial, ITA, for 75 Ohm Includes: Crimp Tool and Locator for Center Contact (Part # 910 104 138), and Hex Crimp Tool for Outer Shield (Part # 910 104 139)
910 104 139	Tool, Hex Crimp for Outer Shield, 75 Ohm Coaxial, Receiver and ITA Contacts
EXTRACTION TOOL	
910 112 117	Tool, Extraction, for 75 Ohm and 20 GHz Receiver and ITA Contacts

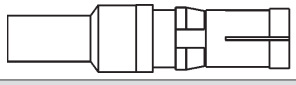
Visit vpc.com for complete instructions on how to use these tools.

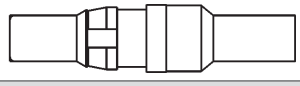
75 Ohm High Definition (HD) Coaxial Patchcords and Contacts

Contact Specifications

Characteristic Impedance	75 Ohms
Frequency Range	DC to 2 GHz
Contact Resistance	Center contact – 5 mOhms Outer shield – 3 mOhms
Insertion Loss	–.5 dB Max
Dielectric Withstanding Voltage (DWV)	800 VRMS
Operating Current	3.0 Amp Max. Continuous
Insulation Resistance	1000 MOhms Min.
Contact Body	Female & Male Shield • Brass Center Contact • BeCu
Insertion/Extraction Force	2.0 lbs Max. [0.91 kg]
Contact Plating	Center Conductor Shield • 30μ" Au over 100μ" Ni
Life Cycle	20,000 Cycles

75 Ohm Coaxial Receiver Patchcord	75 Ohm Coaxial ITA Patchcord





Part # 610 102 133	Part # 610 102 132

Part #	Contact Used	Length	AWG	Description	Used in Module
75 OHM HD COAXIAL RECEIVER CONTACT					
610 102 133	Coaxial Contact, Receiver, 75 Ohm HD, sm59/U Belden 1855A, 2GHz, Crimp				510 104 251
75 OHM HD COAXIAL ITA CONTACT					
610 102 132	Coaxial Contact, ITA, 75 Ohm HD, sm59/U Belden 1855A, 2GHz, Crimp				510 108 179
75 OHM HD COAXIAL RECEIVER AND ITA PATCHCORDS					
7-412 873 000-036	610 102 133	36"	sm59/U	Receiver, Single Ended	510 104 251
7-412 873 000-072	610 102 133	72"	sm59/U	Receiver, Single Ended	510 104 251
7-411 873 000-036	610 102 132	36"	sm59/U	ITA, Single Ended	510 108 179
7-411 873 000-072	610 102 132	72"	sm59/U	ITA, Single Ended	510 108 179
CRIMP TOOLS					
910 104 139	Tool, Hex Crimp for Outer Shield, 75 Ohm HD Coaxial, Receiver and ITA Contacts				
EXTRACTION TOOL					
910 112 117	Tool, Extraction, for 75 Ohm and 20 GHz Receiver and ITA Contacts				

** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

20 GHz Coaxial Patchcords and Contacts

Contact Specifications

Characteristic Impedence	50 Ohms
Frequency Range	DC to 20 GHz
Insertion Loss	–.06 x√f(GHz) dB
VSWR	1.15 + .01 (f) GHz w/ SF142 (20 GHz) 1.25 for 2 – 18 GHz (w/ TF402) 1.30 for 18 – 20 GHz (w/ TF402)
Operating Current	5 Amp DC Max. Continuous
Contact Isolation	> –90 dB over Frequency Range
Insertion Force	4.0 lbs Max. [1.81 kg]
Dielectric Withstanding Voltage (DWV)	800 V RMS Shield to center contact 1000 V RMS
Insulation Resistance	2000 MOhms Min.
Contact Body	Female & Male Plug (RCV & ITA) – shield – brass, center conductor – BeCu
Contact Plating	Male Plug (ITA) – 50µ" Au over 100µ" Ni; Female (RCV) – 50µ" Au over 100µ" Ni
Cycle Life	20,000 Cycles

For applications where a more flexible cable is needed, use TFlex 402 cable and our solder contact. TFlex 402 cable has half the minimum bend radius as SF142. For situations where flexibility is not as important, we offer our crimp contact with SF142 cable.

20 GHz Coaxial Receiver Patchcord • SF142B

20 GHz Coaxial ITA Patchcord • SF142B

20 GHz Coaxial Receiver Patchcord • TFlex 402

20 GHz Coaxial ITA Patchcord • TFlex 402

Part #	Contact Used	Length	Wire	Description	Used in Module
20 GHZ COAXIAL RECEIVER CONTACTS					
610 102 109	Coaxial Contact, Receiver, 20 GHz, Crimp/Clamp for SF142B, 20 GHz				510 104 251
610 102 119	Coaxial Contact, Receiver, 20 GHz, Solder for TFlex 402, 20 GHz, available only in patchcords				510 104 251
20 GHZ COAXIAL ITA CONTACTS					
610 102 110	Coaxial Contact, ITA, 20 GHz, Crimp/Clamp for SF142B, 20 GHz				510 108 179
610 102 118	Coaxial Contact, ITA, 20 GHz, Solder for TFlex 402, 20 GHz, available only in patchcords				510 108 179
20 GHZ COAXIAL RECEIVER AND ITA PATCHCORDS					
7-384 143 000-036	610 102 109	36"	SF142B	Receiver, Single Ended (20GHz)	510 104 251
7-384 143 000-072	610 102 109	72"	SF142B	Receiver, Single Ended (20GHz)	510 104 251
7-388 102 000-036	610 102 119	36"	TFlex 402	Receiver, Single Ended (20 GHz)	510 104 251
7-388 102 000-072	610 102 119	72"	TFlex 402	Receiver, Single Ended (20 GHz)	510 104 251
7-383 143 000-036	610 102 110	36"	SF142B	ITA, Single Ended (20GHz)	510 108 179
7-383 143 000-072	610 102 110	72"	SF142B	ITA, Single Ended (20GHz)	510 108 179
7-387 102 000-036	610 102 118	36"	TFlex 402	ITA, Single Ended (20 GHz)	510 108 179
7-387 102 000-072	610 102 118	72"	TFlex 402	ITA, Single Ended (20 GHz)	510 108 179

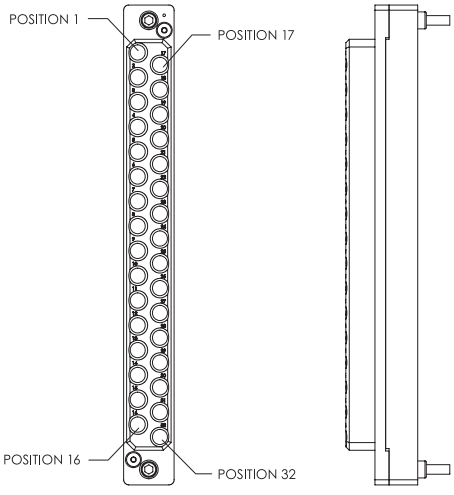
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

32 Position 20 GHz or 75 Ohm High Definition (HD) Coaxial Modules

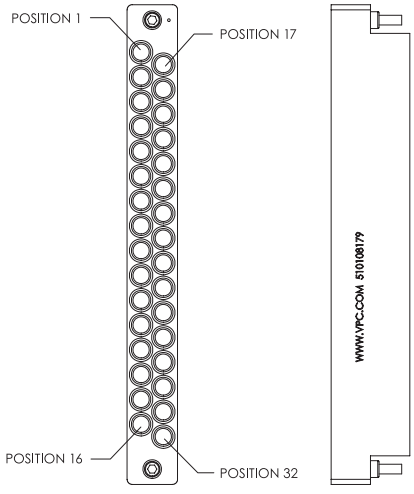
Module Specifications

Receiver Material	Black PPS
Receiver Temperature	Operating • –55° C to 125° C Non-Operating • –65° C to 220°C
ITA Material	Black PPS
ITA Temperature	Operating • –55° C to 125° C Non-Operating • –65° C to 220°C
Available Contact Positions	32
Module Slots Needed	1

32 Position 20 GHz or 75 Ohm HD Coaxial Modules • ITA and Receiver



RCV • Part # 510 104 251



ITA • Part # 510 108 179

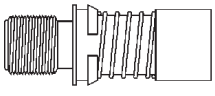
Part #	Description	Contacts Used
20 GHZ OR 75 OHM HD COAXIAL RECEIVER MODULE		
510 104 251	Coaxial Module, Receiver, 20 GHz and 75 Ohm HD, 32 Position	610 102 109/116 610 102 133
20 GHZ OR 75 OHM HD COAXIAL ITA MODULE		
510 108 179	Coaxial Module, ITA, 20 GHz, 75 Ohm and 75 Ohm HD, 32 Position	610 102 110/118 610 103 169 610 102 132

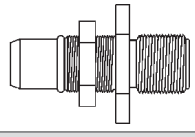
18 GHz Coaxial SMA Patchcords and Contacts

Contact Specifications

Characteristic Impedence	50 Ohms
Frequency Range	DC to 18 GHz
Maximum VSWR	1.05 + .005f (GHz) up to 18 GHz
Insertion Loss	−.06 x √ (f) GHz dB
Temperature Range	−65°C to 165°C
Operating Voltage and Current	6.7 Amp @ 335 V RMS Max
Contact Resistance	4 mOhms Max. center conductor 2 mOhms Max. outer shield
Insertion Force	Insertion – 3.0 lbs Max. [1.36 kg] Extraction – 1.5 lbs Max. [0.68 kg]
Dielectric Withstanding Voltage (DWV)	1000 V RMS min.
Insulation Resistance	5000 mOhms min.
Contact Body	Housing – stainless steel Center Contact – BeCu
Contact Plating	Au over Ni per Mil-G-45204
Cycle Life	20,000 Cycles

SMA Patchcord





Part # 610 102 108	Part # 610 102 107

Part #	Contact Used	Length	AWG	Description	Mates to Contact

18 GHZ COAXIAL RECEIVER CONTACT

610 102 108	Coaxial Contact, Receiver, 18 GHz, SMA Adapter

18 GHZ COAXIAL ITA CONTACT

610 102 107	Coaxial Contact, ITA, 18 GHz, SMA Adapter

18 GHZ COAXIAL SMA PATCHCORDS

7-528 143 528-036	SMA Plug	36"	SF142	Double Ended	610 102 107/108
7-528 143 528-072	SMA Plug	72"	SF142	Double Ended	610 102 107/108
7-531 102 531-036	SMA Plug	36"	TFlex 402	Double Ended	610 102 107/108
7-531 102 531-072	SMA Plug	72"	TFlex 402	Double Ended	610 102 107/108

TOOLS

910 112 115	Tool, Extraction, 18 GHz for Receiver Contact
910 121 165	Tool, 18 GHz Wrench for ITA Contact Installation and Removal

NOTE: 18 GHz Receiver and ITA contacts accept an SMA plug.

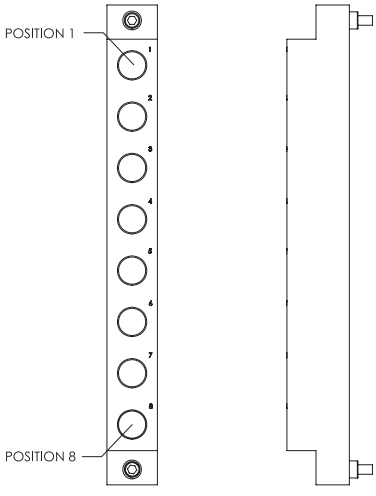
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

8 Position 18 GHz Coaxial Modules

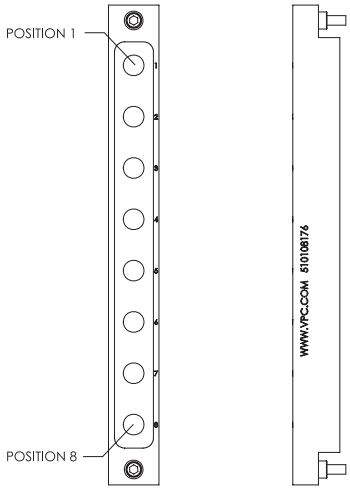
Module Specifications

Receiver Material	G10 Epoxy Glass
Receiver Temperature	Operating • –55° C to 125° C Non Operating • –55° C to 140° C
ITA Material	G10 Epoxy Glass
ITA Temperature	Operating • –55° C to 125° C Non Operating • –55° C to 140° C
Available Contact Positions	8
Module Slots Needed	1

8 Position 18 GHz Coaxial Modules • ITA and Receiver



RCV • Part # 510 104 203



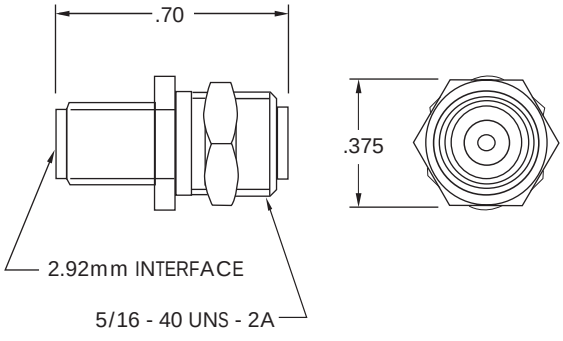
ITA • Part # 510 108 176

Part #	Description	Contacts Used
18 GHZ COAXIAL RECEIVER MODULE AND STRAIN RELIEF		
510 104 203	Coaxial Module, Receiver, 18 GHz, 8 Position	610 102 108
510 109 298	Strain Relief Plate for Receiver Modules	
18 GHZ COAXIAL ITA MODULE		
510 108 176	Coaxial Module, ITA, 18 GHz, 8 Position	610 102 107
510 109 296	Strain Relief Plate for ITA Modules	

40 GHz Coaxial Contact

Contact Specifications

Characteristic Impedence	50 Ohms
Frequency Range	DC – 40 GHz
Temperature Range	–50° C to 125°C
Weight	2.0 oz.
Insertion Loss	–0.85 dB Max.
VSWR	1.35 DC to 18 GHz 1.55 18 to 40 GHz
Contact Body	Passivated Stainless Steel body Beryllium Copper contacts Au Plated
Contact Isolation	–85 dB



Part # 610 102 114

Part #	Description	Used in Module
40 GHZ COAXIAL RECEIVER/ITA CONTACT		
610 102 114	Coaxial Contact, Receiver/ITA, 40 GHz	510 108 169 510 104 224

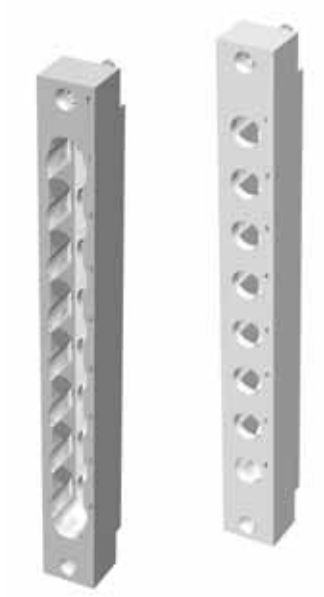
NOTE: The 40 GHz Connector is a blind mate connector that mates with 3.5 mm and 2.92 mm connectors. 2.92 mm connectors are recommended for frequencies above 26 GHz.

** VPC recommends the 40 GHz modules be placed in module slots near the outside edges of the receiver.*

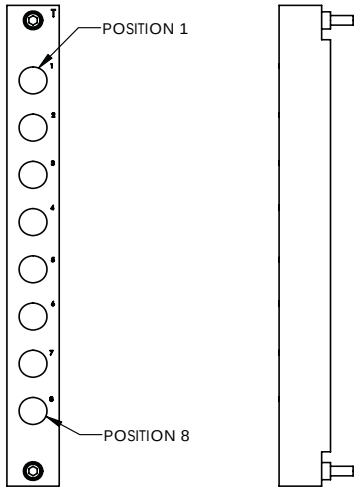
8 Position 40 GHz Coaxial Modules

Module Specifications

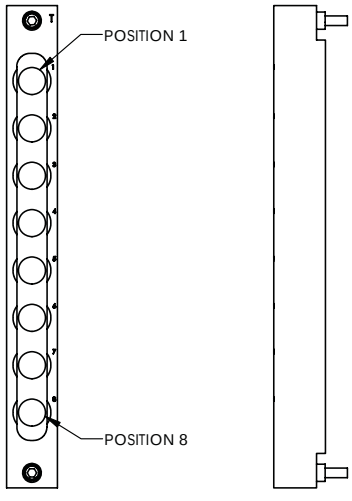
Receiver Material	Aluminum Clear Chromate Finish
Receiver Temperature	–55° C to 125° C
ITA Material	Aluminum Clear Chromate Finish
ITA Temperature	–55° C to 125° C
Available Contact Positions	8
Module Slots Needed	1



8 Position 40 GHz Coaxial Modules • ITA and Receiver



RCV • Part # 510 104 224



ITA • Part # 510 108 169

Part #	Description	Contacts Used
40 GHZ COAXIAL RECEIVER MODULE AND STRAIN RELIEF		
510 104 224	Coaxial Module, Receiver, 40 GHz, 8 Position	610 102 114
510 109 298	Strain Relief Plate for Receiver Modules	
40 GHZ COAXIAL ITA MODULE AND STRAIN RELIEF		
510 108 169	Coaxial Module, ITA, 40 GHz, 8 Position	610 102 114
510 109 296	Strain Relief Plate for ITA Modules	

** VPC recommends the 40 GHz modules be placed in module slots near the outside edges of the receiver.*

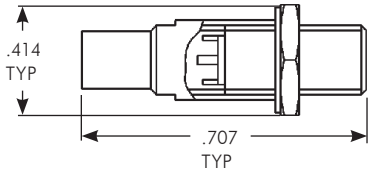
Twinaxial Patchcords and Contacts

Contact Specifications

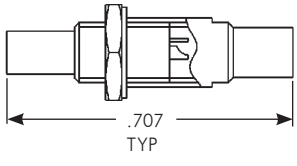
Operating Voltage and Current	30 Amp Max. Continuous (480 RMS)
Contact Resistance	Center contact is < 6.5 mOhms; Intermediate contact is < 3 mOhms; Outer contact is < 3.5 mOhms
Insertion Loss	−0.044 dB @ 0.2 GHz
Maximum VSWR	Approximately 1.1:1 @ 100 MHz
Insulation Resistance	106 mOhms min.
Insertion Force	3.5 lbs Max. [1.59 kg]
Contact Body	Outer Shell • Brass Inner Shield • Bronze Male Contact • Brass
Contact Plating	40 μ" Au over 130 μ" Ni
Cycle Life	20,000 Cycles

Twinaxial Receiver Patchcord

Twinaxial ITA Patchcord



Part # 610 113 144



Part # 610 113 145

Part #	Contact Used	Length	AWG	Description	Used in Module
TWINAXIAL RECEIVER CONTACT					
610 113 144	Twinaxial Contact, Receiver				510 104 155
TWINAXIAL ITA CONTACT					
610 113 145	Twinaxial Contact, ITA				510 108 138
TWINAXIAL RECEIVER AND ITA PATCHCORDS					
7-402 423 000-036	610 113 144	36"	22 AWG T/P shield	Receiver, Single Ended	510 104 155
7-402 423 000-072	610 113 144	72"	22 AWG T/P shield	Receiver, Single Ended	510 104 155
7-401 423 000-036	610 113 145	36"	22 AWG T/P shield	ITA, Single Ended	510 108 138
7-401 423 000-072	610 113 145	72"	22 AWG T/P shield	ITA, Single Ended	510 108 138

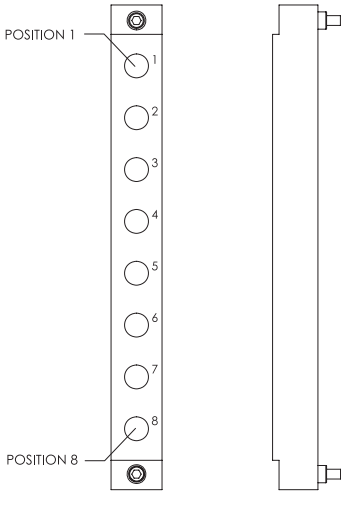
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

8 Position Twinaxial Modules

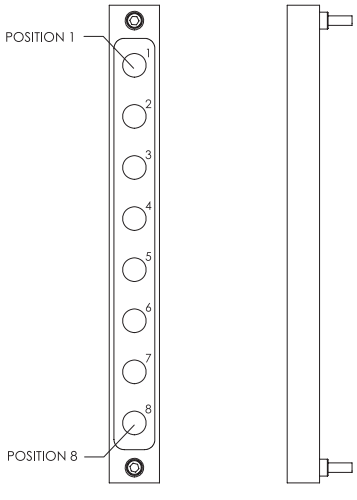
Module Specifications

Receiver Material	G10 Epoxy Glass
Receiver Temperature	Operating • –55° C to 125° C Non-Operating • –65° C to 140° C
ITA Material	G10 Epoxy Glass
ITA Temperature	Operating • –55° C to 125° C Non-Operating • –65° C to 140° C
Available Contact Positions	8
Module Slots Needed	1

8 Position Twinaxial Modules • ITA and Receiver



Part # 510 104 155



Part # 510 108 138

Part #	Description	Contacts Used
TWINAXIAL RECEIVER MODULE		
510 104 155	Twinaxial Module, Receiver, 8 Position	610 113 144
TWINAXIAL ITA MODULE		
510 108 138	Twinaxial Module, ITA, 8 Position	610 113 145

Thermocouple Patchcords and Contacts

Contact Specifications

ANSI Type	K
Thermocouple Pair Materials	Chromel® Alumel®
Polarity	Chromel® + Alumel® –
Material Type	Base
TC Temperature Range	Chromel® & Alumel® –200° C to 1250° C
EMF (mV)	–5.97 to +50.63
Cycle Life	20,000 Cycles

Thermocouple Receiver Patchcord | Thermocouple ITA Patchcord

Part # 610 113 131 | Part # 610 113 133

Part #	Contact Used	Length	AWG	Description	Used in Module
THERMOCOUPLE RECEIVER CONTACTS					
610 113 131	Thermocouple Contact, Receiver, Chromel				510 104 133/245
610 113 132	Thermocouple Contact, Receiver, Alumel				510 104 133/245
THERMOCOUPLE ITA CONTACTS					
610 113 133	Thermocouple Contact, ITA, Chromel				510 108 124/261
610 113 134	Thermocouple Contact, ITA, Alumel				510 108 124/261
THERMOCOUPLE RECEIVER PATCHCORDS					
7-410 803 000-036	610 113 131 & 610 113 132	36"	20	Receiver, Chromel & Alumel, Single Ended	510 104 133/245
7-410 803 000-072	610 113 131 & 610 113 132	72"	20	Receiver, Chromel & Alumel, Single Ended	510 104 133/245
THERMOCOUPLE ITA PATCHCORDS					
7-409 803 000-036	610 113 133 & 610 113 134	36"	20	ITA, Chromel & Alumel, Single Ended	510 108 124/261
7-409 803 000-072	610 113 133 & 610 113 134	72"	20	ITA, Chromel & Alumel, Single Ended	510 108 124/261
TOOLS AND LOCATORS					
910 101 102	Tool, Crimp, 10 Amp TriPaddle Signal/Thermocouple, Receiver and ITA				
910 104 134	Tool, Locator, Receiver, Thermocouple				
910 104 135	Tool, Locator, ITA, Thermocouple				
910 110 102	Tool, Extraction, Receiver and ITA, Signal/Thermocouple				

NOTE: The Chromel-Alumel thermocouple is composed of a positive Chromel wire and a negative Alumel wire.

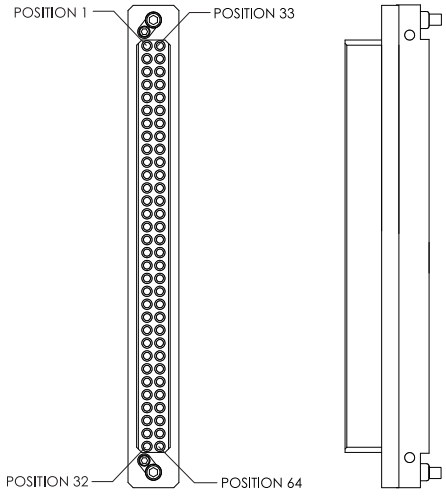
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

64 Position Thermocouple Modules

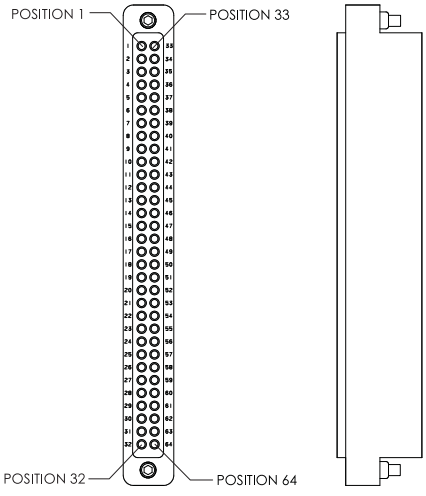
Module Specifications

Receiver Material	Black PPS
Receiver Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 220°C
ITA Material	Black PPS
ITA Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 220°C
Available Contact Positions	64
Module Slots Needed	1

64 Position Thermocouple Modules • ITA and Receiver



Part # 510 104 133



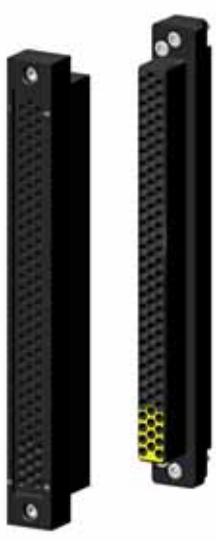
Part # 510 108 124

Part #	Description	Contacts Used
THERMOCOUPLE RECEIVER MODULE AND STRAIN RELIEF		
510 104 133	Thermocouple Module, Receiver, 64 Position	610 113 131/132
510 109 116	Strain Relief Plate for Select Receiver Modules	
THERMOCOUPLE ITA MODULE AND STRAIN RELIEF		
510 108 124	Thermocouple Module, ITA, 64 Position	610 113 133/134
510 109 296	Strain Relief Plate for ITA Modules	

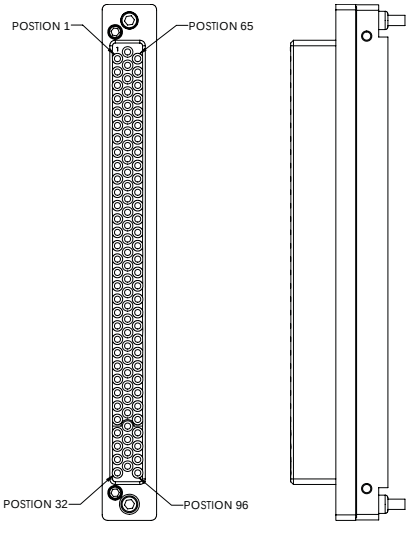
84/12 Position TriPaddle Signal/Thermocouple Modules

Module Specifications

Receiver Material	G10 Epoxy
Receiver Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 140° C
ITA Material	Black PPS
ITA Temperature	Operating • −55° C to 125° C Non Operating • −65° C to 220° C
Available Contact Positions	84 Signal, 12 Thermocouple
Module Slots Needed	1

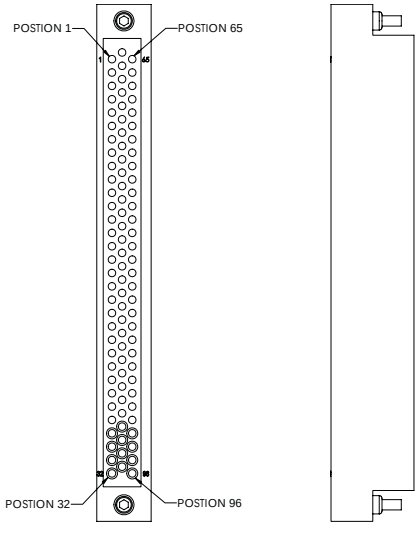


Signal/Thermocouple Hybrid Modules • IIA and Receiver



Thermocouple Contacts occupy the bottom 12 Positions

RCV • Part # 510 104 261



Thermocouple Contacts occupy the bottom 12 Positions

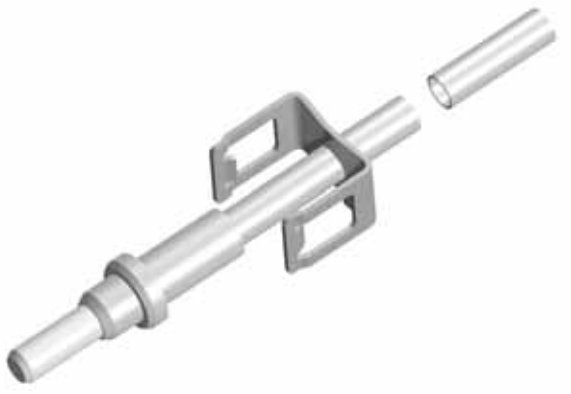
ITA • Part # 510 108 245

Part #	Description	Contacts Used	
TRIPADDLE SIGNAL/THERMOCOUPLE RECEIVER MODULES		TRIPADDLE	THERMOCOUPLE
510 104 261	TriPaddle Signal/Thermocouple Module, Receiver, 84/12 Position	610 110 101/ 104/128/167	610 113 131/132
510 109 116	Strain Relief Plate for Select Receiver Modules		
TRIPADDLE SIGNAL/THERMOCOUPLE ITA MODULES		TRIPADDLE	THERMOCOUPLE
510 108 245	TriPaddle Signal/Thermocouple Module, ITA, 84/12 Position	610 110 108/ 113/129/169	610 113 133/134
510 109 296	Strain Relief Plate for ITA Modules		

Fiber Optic Patchcords

Contact Specifications

Insertion Loss	–0.5 dB
Insertion Force	1.5 lbs [0.68 kg]
Return Loss	–35 dB



Fiber Optic Patchcord

Part #	Description

FIBER OPTIC RECEIVER PATCHCORDS

7-406 804 503-036	Fiber Optic Patchcord, Receiver with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to FC with SPC Polish
7-406 804 506-036	Fiber Optic Patchcord, Receiver with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to ST with SPC Polish
7-406 804 509-036	Fiber Optic Patchcord, Receiver with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to SC with SPC Polish
7-406 804 512-036	Fiber Optic Patchcord, Receiver with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to LC with SPC Polish

FIBER OPTIC ITA PATCHCORDS

7-405 804 503-036	Fiber Optic Patchcord, ITA with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to FC with SPC Polish
7-405 804 506-036	Fiber Optic Patchcord, ITA with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to ST with SPC Polish
7-405 804 509-036	Fiber Optic Patchcord, ITA with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to SC with SPC Polish
7-405 804 512-036	Fiber Optic Patchcord, ITA with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to LC with SPC Polish

FIBER OPTIC ACCESSORIES

730 000 001	Receiver Termini Alignment Sleeve, Replacement (included with Receiver Patchcord assemblies)
910 112 118	Tool, Extraction, Termini and Alignment Sleeve
910 121 170	Fiber Optic Cleaning Kit

NOTE: SPC (Super Physical Contact)

Other contacts and polishes are available. Visit vpc.com for more fiber optic patchcord assembly options.

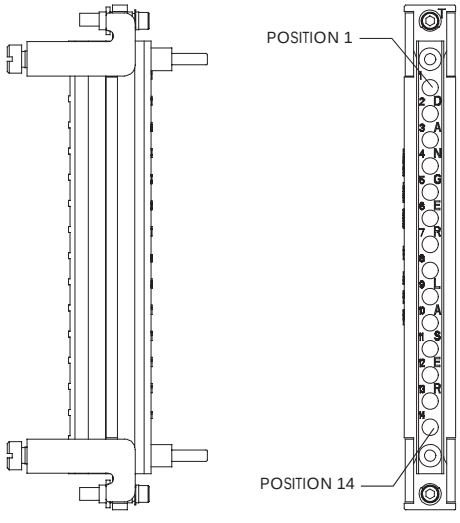
** To instantly design patchcords online, use our Patchcord Designer at vpc.com/patchcorddesigner.*

14 Position Fiber Optic Modules

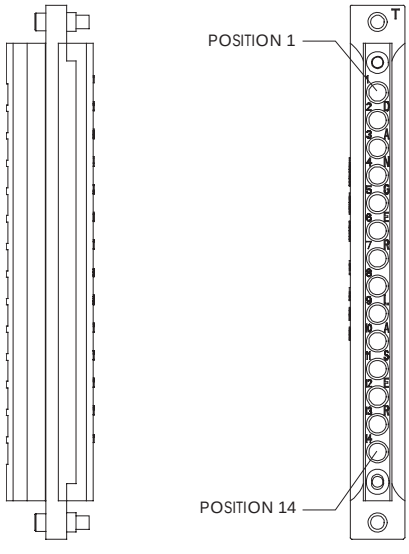
Module Specifications

Receiver Material	Nickel Plated Aluminum
Receiver Temperature	–65°C to 200° C
ITA Material	Nickel Plated Aluminum
ITA Temperature	–65°C to 200° C
Available Contact Positions	14
Module Slots Needed	1

14 Position Fiber Optic Modules • ITA and Receiver



RCV • Part # 510 104 227



ITA • Part # 510 108 189

Part #	Description

FIBER OPTIC RECEIVER MODULE

510 104 227	Fiber Optic Module, Receiver, 14 Position
510 109 294	Fiber Optic Module Protective Dust Cover, Receiver
510 109 311	Strain Relief Plate for Fiber Optic Receiver Modules

FIBER OPTIC ITA MODULE

510 108 189	Fiber Optic Module, ITA, 14 Position
510 109 295	Fiber Optic Module Protective Dust Cover, ITA

**Contacts not sold separately – see Fiber Patchcords*

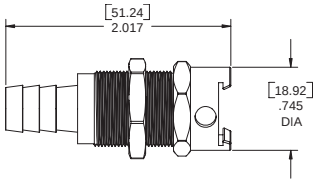
Pneumatic Contacts

Contact Specifications • 1/4" Flow [6.4 mm]

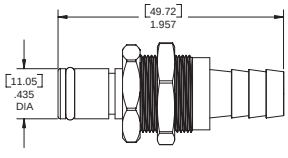
Pressure/Vacuum Rated	250 psi (17.3 Bar)
Operating Temperatures	–40°F to 180°F (–40°C to 82°C)
Contact Body	Chrome-plated brass
Insertion Force	9.4 lbs typical [4.26 kg]

Contact Specifications • 1/8" Flow [3.2 mm]

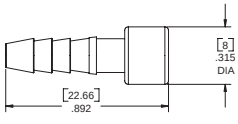
Pressure/Vacuum Rated	100 psi (6.9 Bar)
Operating Temperatures	–40°F to 180°F (–40°C to 82°C)
Contact Body	Delrin®
Insertion Force	1.5 lbs typical [0.68 kg]
Cycle Life	20,000 Cycles



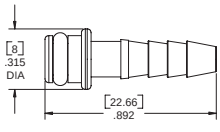
Part # 610 131 104



Part # 610 132 104



Part # 610 132 105
Part # 610 131 107



Part # 610 131 106

Part #	Description	Used in Module
PNEUMATIC RECEIVER CONTACTS		
610 131 101	Pneumatic Contact, Receiver, Ferruless Fitting, for 3/8" OD, .250" ID (9.5 x 6 mm) Tubing	510 104 160
610 131 104	Pneumatic Contact, Receiver, Hose Barb, for 3/8" ID [9.5 mm] Tubing	510 104 160
610 131 106	Pneumatic Contact, Receiver, Hose Barb, for 1/8" ID [4 mm] Tubing	510 104 185
PNEUMATIC ITA CONTACTS		
610 132 101	Pneumatic Contact, ITA, Ferruless Fitting, for 3/8" OD, .250" ID (9.5 x 6 mm) Tubing	510 108 144
610 132 104	Pneumatic Contact, ITA, Hose Barb, for 3/8" ID [9.5 mm] Tubing	510 108 144
610 132 105	Pneumatic Contact, ITA, Hose Barb, for 1/8" ID [4 mm] Tubing	510 108 160
PNEUMATIC CONTACT WITH VALVE		
610 131 107*	Pneumatic Contact (with valve), Hose Barb, for 1/8" ID [4 mm] Tubing	510 104 185

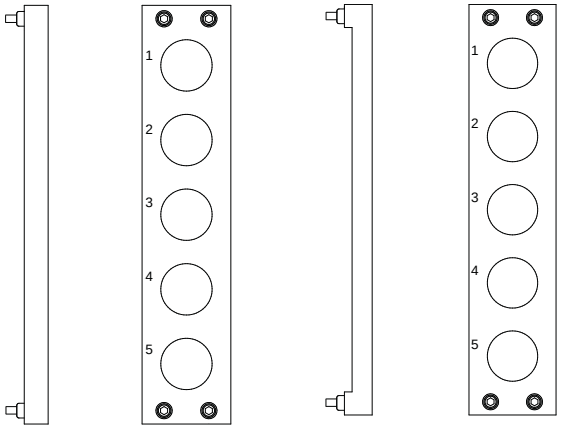
* Use as a Receiver contact in module Part # 510 104 185; it mates to contact Part # 610 131 106 which will need to be used in ITA module Part # 510 108 160.

5 and 10 Position Pneumatic Modules

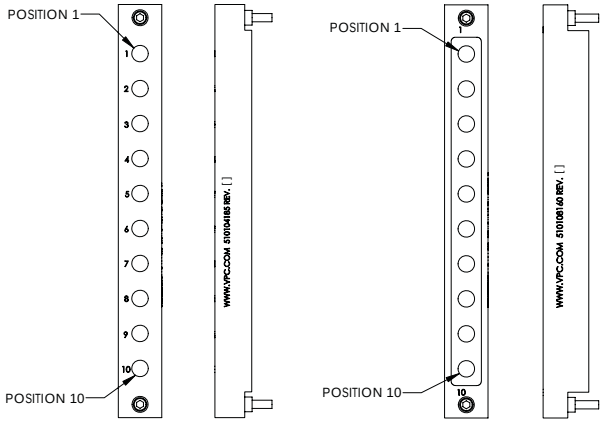
Module Specifications

Receiver Material	G10 Epoxy Glass
Receiver Temperature	Operating • −55° C to 125° C Non-Operating • −65° C to 140°C
ITA Material	G10 Epoxy Glass
ITA Temperature	Operating • −55° C to 125° C Non-Operating • −65° C to 140°C
Available Contact Positions	5 positions (⅜" ID) 10 positions (⅛" ID)
Module Slots Needed	2 slots (⅜" ID), 1 slot (⅛" ID)

5 and 10 Position Pneumatic Modules • ITA and Receiver



Part # 510 104 160 | Part # 510 108 144



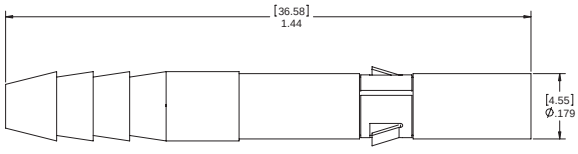
Part # 510 104 185 | Part # 510 108 160

Part #	Description	Contacts Used
RECEIVER PNEUMATIC MODULES - 5 AND 10 POSITION		
510 104 160	Pneumatic Module, Receiver, 5 Position (1/4" Flow)	610 131 101/104
510 104 185	Pneumatic Module, Receiver, 10 Position (1/8" Flow)	610 131 106/107
ITA PNEUMATIC MODULES - 5 AND 10 POSITION		
510 108 144	Pneumatic Module, ITA, 5 Position (1/4" Flow)	610 132 101/104
510 108 160	Pneumatic Module, ITA, 10 Position (1/8" Flow)	610 132 105

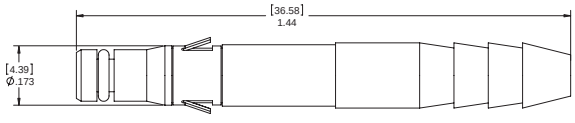
Mini Pneumatic Contacts

Contact Specifications • .075" Flow [1.9 mm]

Pressure/Vacuum Rated	100 psi (6.9 Bar)
Contact Body	Nickel-plated Brass
Cycle Life	20,000



RCV • Part # 610 131 108



ITA • Part # 610 132 106

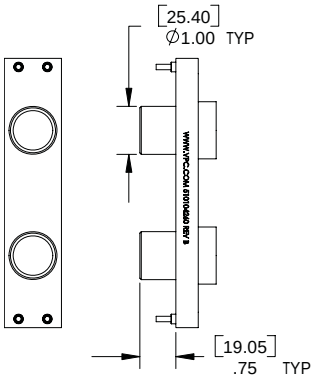
Part #	Description	Used in Module
MINI PNEUMATIC RECEIVER CONTACTS		
610 131 108	Mini Pneumatic Contact, Receiver, Hose Barb for 0.125" (4.0mm) ID, Tubing Fits Mini Coaxial or Mini Power Modules	510 104 123/206/120 510 104 206 510 104 120 510 104 150 510 104 243
MINI PNEUMATIC ITA CONTACTS		
610 132 106	Mini Pneumatic Contact, ITA, Hose Barb for 0.125" (4.0mm) ID, Tubing Fits Mini Coaxial or Mini Power Modules	510 108 115/206/120 510 108 178 510 108 111 510 108 132 510 108 210
EXTRACTION TOOL		
910 112 104	Tool, Extraction, for Mini Pneumatic Contacts	

2 Port Vacuum Modules

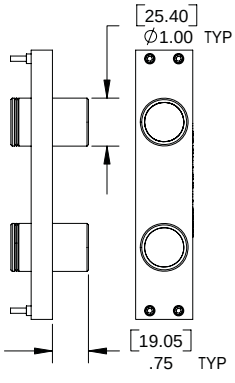
Module Specifications

Receiver Material	Black Anodized Aluminum
Receiver Temperature	Operating • –65° C to 200° C
ITA Material	Black Anodized Aluminum
ITA Temperature	Operating • –65° C to 200° C
Module Slots Needed	2

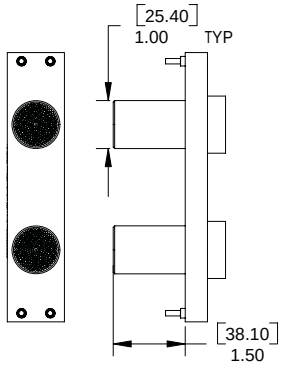
Vacuum Modules • ITA and Receiver



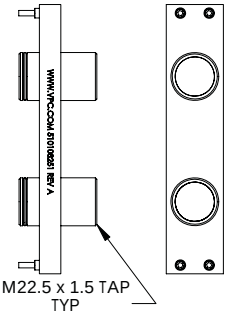
Part # 510 104 260



Part # 510 108 242



Part # 510 104 266



Part # 510 108 251

Part #	Description

VACUUM RECEIVER MODULES

510 104 260	Vacuum Module, Receiver, 2 Port Positions
510 104 266	Vacuum Module, Receiver, 2 Port Positions with Filter

VACUUM ITA MODULES

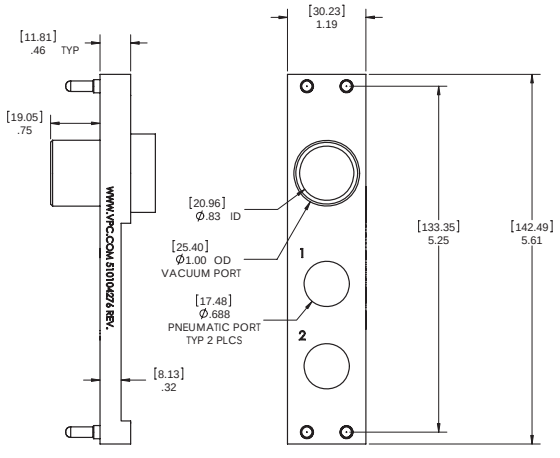
510 108 242	Vacuum Module, ITA, 2 Port Positions
510 108 251	Vacuum Module, ITA, 2 Port Positions with M22.5 x 1.5 Tap

Vacuum-Pneumatic Modules

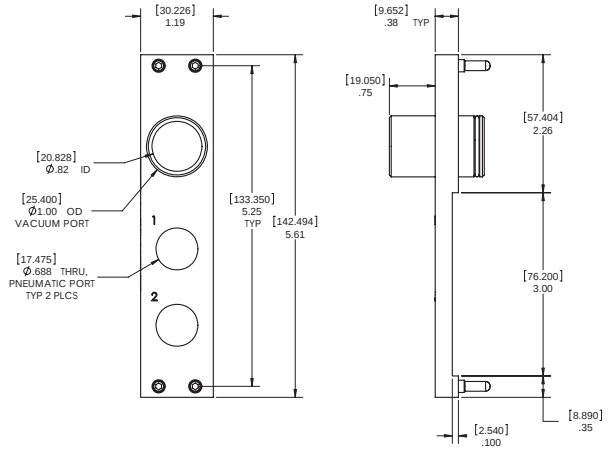
Module Specifications

Material	Black Anodized Aluminum
Temperature	–65° C to 200° C
Module Slots Needed	2
Vacuum Positions	1
Pneumatic Positions	2

Vacuum-Pnematic Modules • ITA and Receiver



RCV • Part # 510 104 276



ITA • Part # 510 108 264

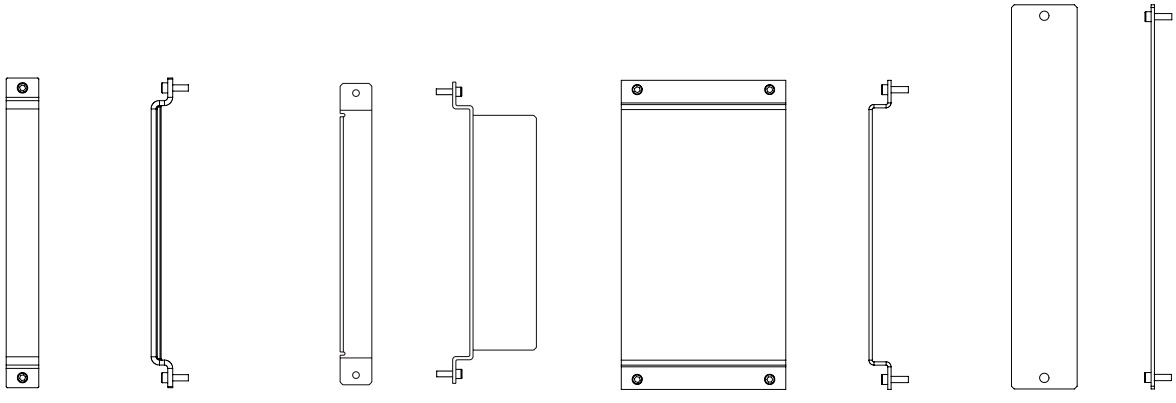
Part #	Description	Contacts Used
VACUUM-PNEUMATIC RECEIVER MODULES		
510 104 276	Vacuum-Pneumatic Module, Receiver, 1-2 Position	610 132 101/104
VACUUM-PNEUMATIC ITA MODULES		
510 108 264	Vacuum-Pneumatic Module, ITA, 1-2 Position	610 131 101/104

Blank Modules

Module Specifications

Material	Black-PEI (Part # 510 104 118) Black Anodized Aluminum
Temperature	Black-PEI Operating • −65° C to 240° C

Blank Modules



Part # 510 104 118	Part # 510 104 129	Part # 510 104 144	Part # 510 104 178

Part #	Description
BLANK RECEIVER/ITA MODULES	
510 104 118	Blank Module, Receiver/ITA, 1 Module Position
510 104 129	Blank Shielding Module, Receiver/ITA, 1 Module Position
510 104 144	Blank Module, Receiver/ITA, 5 Module Positions
510 104 178*	Blank Module, VXI Receiver, 2 Module Positions

** Part # 510 104 178 does not require VXI Module Retainer Blocks to mount to the inner frame of the VXI Receiver*

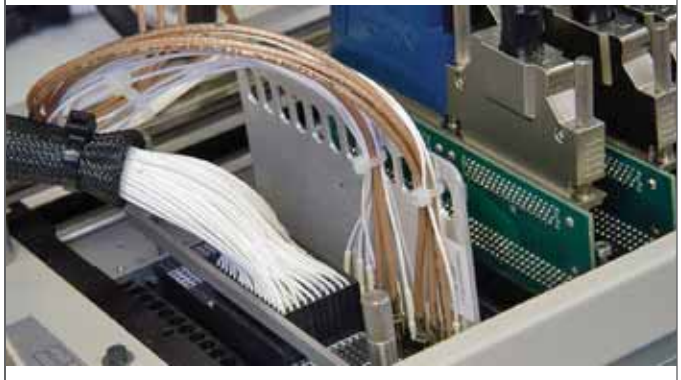
Cable Management

Cable Management is best described as instrument access and strain relief, which is reducing the amount of unnecessary force applied to the wires and cables connected to your system. The purpose of using a strain relief plate is to protect your investment. There is a potential for damage to occur around the area of wire termination. Forces are exerted on the wire terminations every time the cables are plugged, unplugged, or put under any tension or compression. These strain relief plates are designed to absorb the majority of the forces put on the cables and ensure that the terminations stay intact. Each plate has numerous holes positioned to allow a variety of wire spacing and management options. The wires are attached to the holes by tie wraps, which tightly secures the wires without causing damage. The result is accurate functioning of your equipment without the worry of possible intermittences.

Virginia Panel Corporation recommends certain strategies to help in the design and management of cable assemblies within your Mass InterConnect system. When using any of the variety of rack mounted Receiver systems offered by VPC, cable length and positioning should be considered to eliminate potential problems with cable assembly management between the Receiver unit and Instrumentation.

Rack-mounted Receiver Positioning

If the VPC receiver is not properly located on the rack relative to instrument chassis placement, cabling becomes difficult due to the lack of space between the front of the instrument chassis and the front of the rack. VPC recommends that the receiver be mounted to the rack either below or above the instrument chassis. It is acceptable to mount the receiver directly behind the chassis at 8-10 inches away. This will give the cable assemblies the flexibility and space needed to eliminate tight bends in the cables and unwanted applied forces on the instrument connector and VPC modules.



Cable Length

Determining proper cable length needed to connect from an instrument card to a VPC module located in a receiver requires the following steps:

1. Determine the location of the instrument card in the chassis and placement of the chassis in rack.
2. Determine the location of VPC receiver in rack system.
3. Measure from the front face of the instrument card to the module location in the VPC receiver, allowing for bends in the cable for proper routing.

Considerations

Is a hinged down receiver or Vertical Hinged Mounting Frame used as a part of the system?
If so, extra length must be added to allow the receiver to hinge down 90 degrees from the face of the rack. Add 8" for 5U and 12" for 8 and 9U Vertical Hinged Mounting Frames.

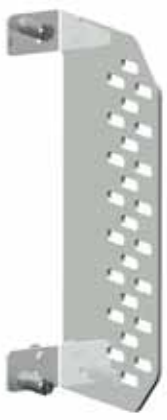
Does the system have cable tie down bars?
If cable tie down bars are integrated with the system, ensure cable length accommodates the placement of where the cable will be tied down to provide proper strain relief.

VPC Standard Cable Lengths are: 20", 36", 48", and 72".

Works with Receiver Modules:
510 104 102
510 104 120
510 104 123
510 104 133
510 104 134
510 104 136
510 104 149
510 104 206
510 104 243
510 104 261

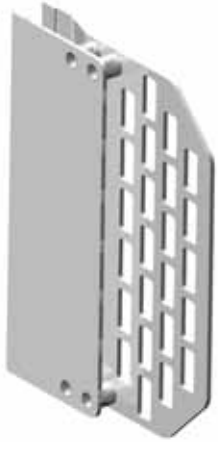
Module Strain Relief Plate • **Part # 510 109 116**

Designed to support the Racal "Adapta-Switch" and the VXI Technology SMIP II Instrumentation cards



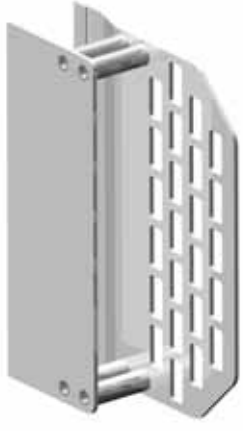
160 pin DIN Universal Strain Relief Plate • **Part # 510 109 338**

Works with QuadraPaddle Receiver Modules:
510 150 130
510 150 115



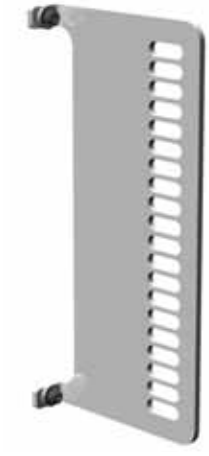
192 Position Strain Relief • **Part # 510 109 349**

Works with QuadraPaddle Receiver Modules:
510 150 131
510 150 116



480 Position Strain Relief • **Part # 510 109 348**

Works with all Receiver Modules



Module Strain Relief Plate, Receiver • **Part # 510 109 298**
Fiber Optic Module Strain Relief, Receiver • **Part # 510 109 311**

Works with all ITA Modules

Module Strain Relief Plate, ITA • **Part # 510 109 296**

TECH TIP #1 • Cable Bundle Wire Information

A formula to calculate the maximum number of wires recommended for a cable bundle is shown below. Using this formula, the table below shows a sampling of the maximum number of wires that will fit in the oblong bushing; for example the oblong bushing will hold a maximum of 622 Signal (20 AWG) wires **OR** 199 Coaxial (RG316) wires.

Formula to calculate approximate number of wires in a cable bundle:

$N = (1.55/d - 1)^2(.907)$		
N = # of Wires	1.55 = Inside Diameter of Converted Oblong Bushing	d = Outside Diameter of Wire

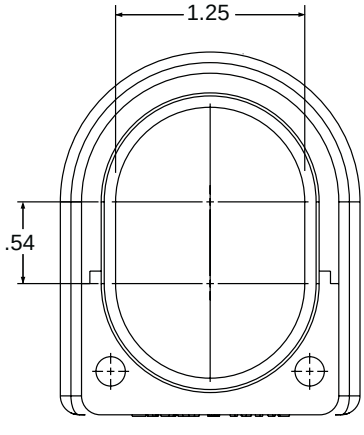
NOTE: If the wiring bundle is too small to secure with the adjustable bushing, remove the clamp assembly within the bushing by removing the two adjustment screws. Reverse the direction of the clamp assembly and secure with the two screws. This provides a reduced diameter within the bushing and allows smaller wire bundles to be held securely.

Oblong Bushing Effective Diameter* = 1.55"

Wire Type	Outside Diameter	1 Cable Clamp Number of Wires
20 AWG Signal- Teflon	.057	622
10 AWG Power - PVF	.142	89
RG316 Coaxial - 50 Ohm	.098	199

* Oblong Opening Area Converted to Simple Diameter

NOTE: Addition of shrink tubing or braid will reduce maximum number of wires through bushing.



TECH TIP #2 • Keying Pin Kit – Keying Plug Locations

KEYING PLUG LOCATIONS

PATTERN 1

RECEIVER		ITA	
PIN A INSTALLED	PIN C INSTALLED	SCREW A OPEN	SCREW C OPEN
PIN B OPEN	PIN D OPEN	SCREW B INSTALLED	SCREW D INSTALLED

PATTERN 2

RECEIVER		ITA	
PIN A INSTALLED	PIN C OPEN	SCREW A OPEN	SCREW C INSTALLED
PIN B INSTALLED	PIN D OPEN	SCREW B OPEN	SCREW D INSTALLED

PATTERN 3

RECEIVER		ITA	
PIN A OPEN	PIN C INSTALLED	SCREW A INSTALLED	SCREW C OPEN
PIN B OPEN	PIN D INSTALLED	SCREW B INSTALLED	SCREW D OPEN

PATTERN 4

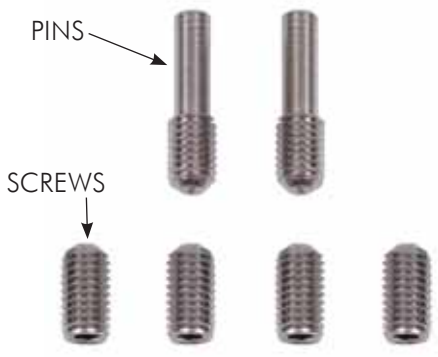
RECEIVER		ITA	
PIN A OPEN	PIN C OPEN	SCREW A INSTALLED	SCREW C INSTALLED
PIN B INSTALLED	PIN D INSTALLED	SCREW B OPEN	SCREW D OPEN

PATTERN 5

RECEIVER		ITA	
PIN A OPEN	PIN C INSTALLED	SCREW A INSTALLED	SCREW C OPEN
PIN B INSTALLED	PIN D OPEN	SCREW B OPEN	SCREW D INSTALLED

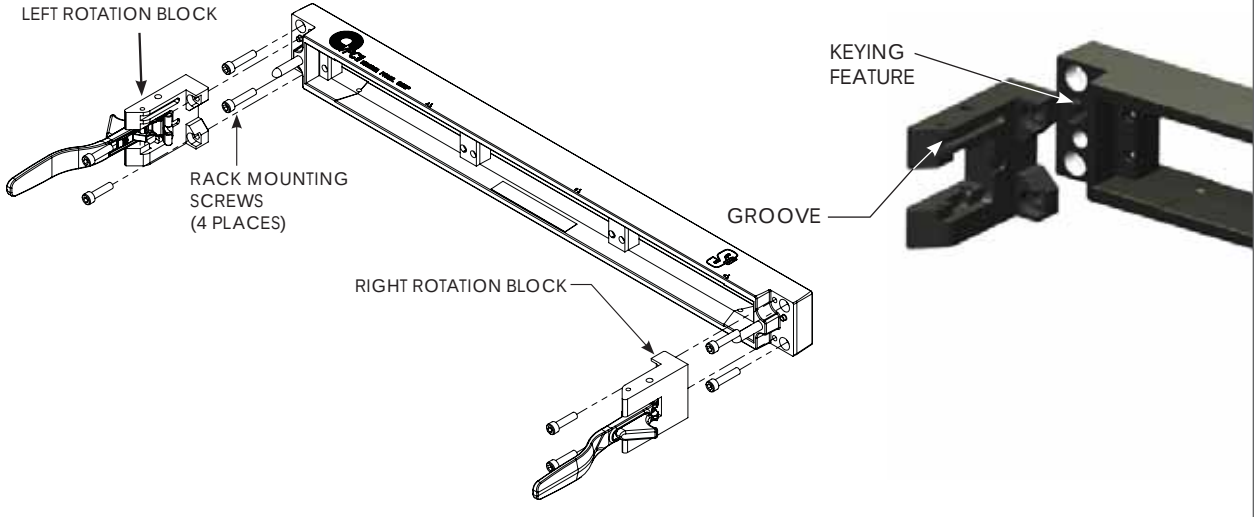
PATTERN 6

RECEIVER		ITA	
PIN A INSTALLED	PIN C OPEN	SCREW A OPEN	SCREW C INSTALLED
PIN B OPEN	PIN D INSTALLED	SCREW B INSTALLED	SCREW D OPEN



TECH TIP #3 • S6 Rotation Block Removal

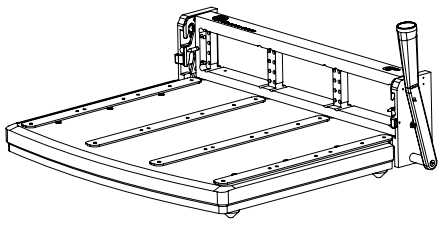
1. Remove the four #10-32 screws and then remove the rotation blocks.
2. Insert the rack mounting screws in the four holes provided.
3. Reinstall the rotation blocks. The illustration below shows a keying feature that ensures proper replacement of the rotation blocks.

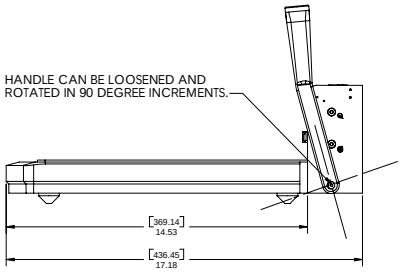


The rotation blocks were also designed with a tongue and groove feature to prevent placing the ITA in upside down.
If the rails in your rack are not tapped you will need to purchase #10-32 cage nuts.
NOTE: If you use metric hardware you may replace the provided #10-32 screws with M5 screws.

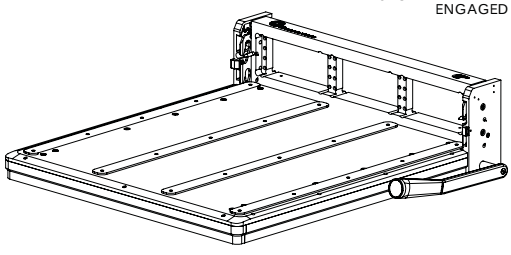
TECH TIP #4 • G12 Handle Rotation Options

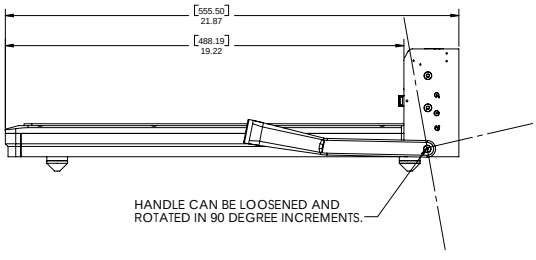
310104325: G12 RECEIVER WITH A 15" PLATFORM
SHOWN WITH HANDLE IN THE STANDARD
DISENGAGED POSITION





310104334: G12 RECEIVER WITH A 20" PLATFORM
SHOWN WITH HANDLE IN THE STANDARD
ENGAGED POSITION



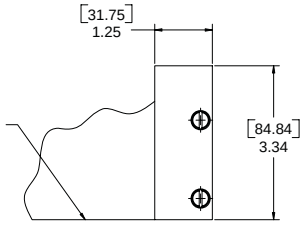


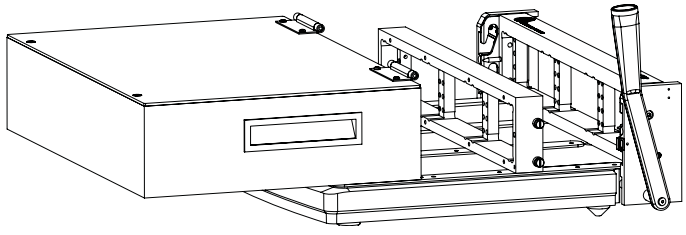
1. Remove the handle set screw with a $^{3}/_{32}$ Allen wrench.
2. Remove the handle and reposition in 90° increments.
3. Replace the screw and tighten until the handle is secured tightly.

TECH TIP #5 • Custom G12 Enclosure Requirements (Part # 410 104 322)

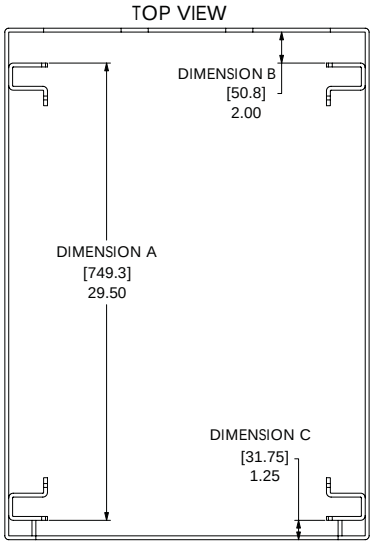
Enclosures must be flush with the ITA bottom to ensure the proper function of the G12 system.

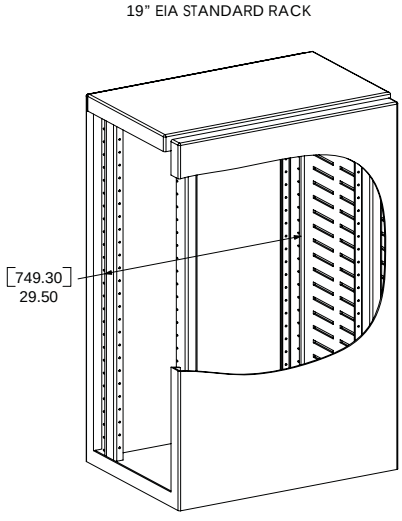
ENCLOSURE MUST BE FLUSH TO BOTTOM OF ITA FRAME. THE WIDTH MAY GROW TO CUSTOMERS NEEDS WITH A SIMPLE ADJUSTMENT OF THE HANDLE ON THE RECEIVER. THERE IS NO LIMIT TO THE HEIGHT OF THE ENCLOSURE.





TECH TIP #6 • Slide Measuring Dimensions



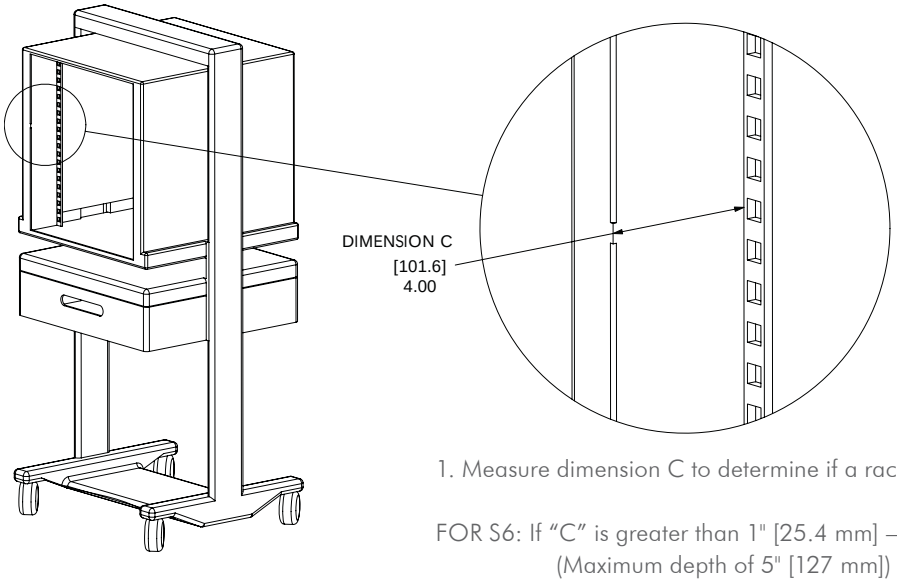


1. Measure dimension A to determine the proper slide kit.

NOTE: Make sure the slide length does not exceed dimensions A plus B.

2. Dimension C is for Rack Extender Kit use.

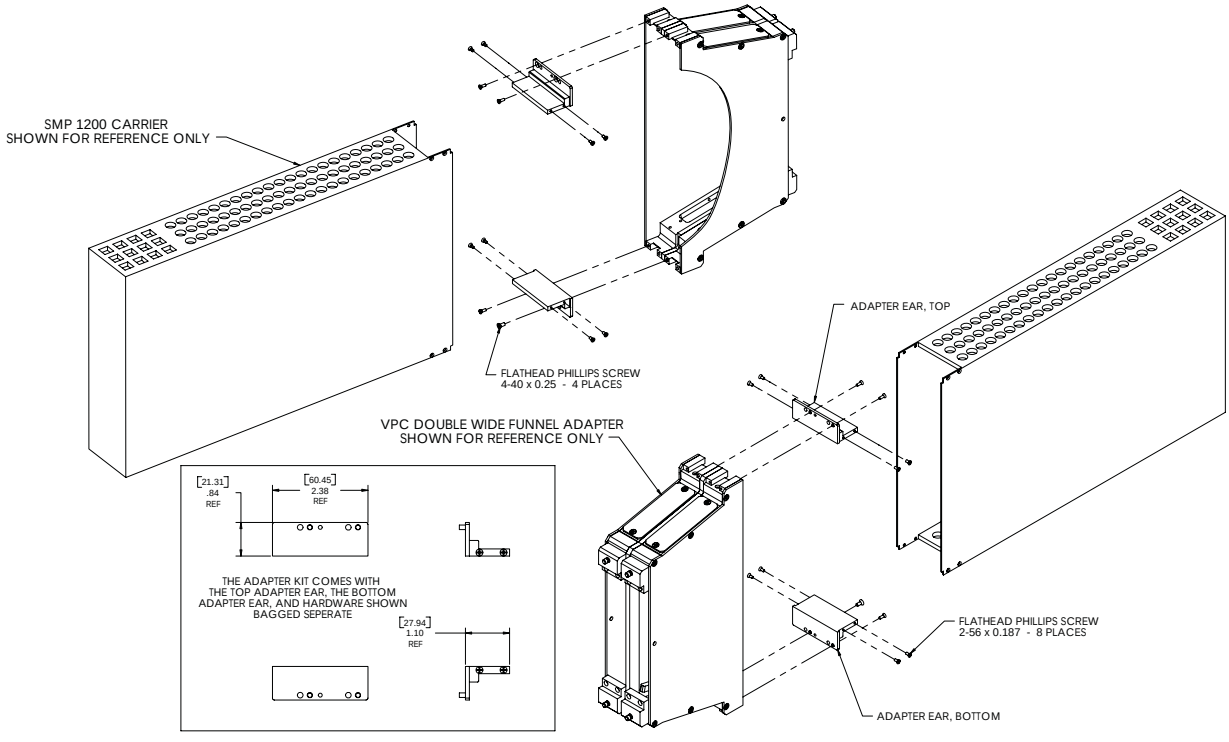
TECH TIP #7 • Rack Extender Kit Dimensions



1. Measure dimension C to determine if a rack extender kit is needed.

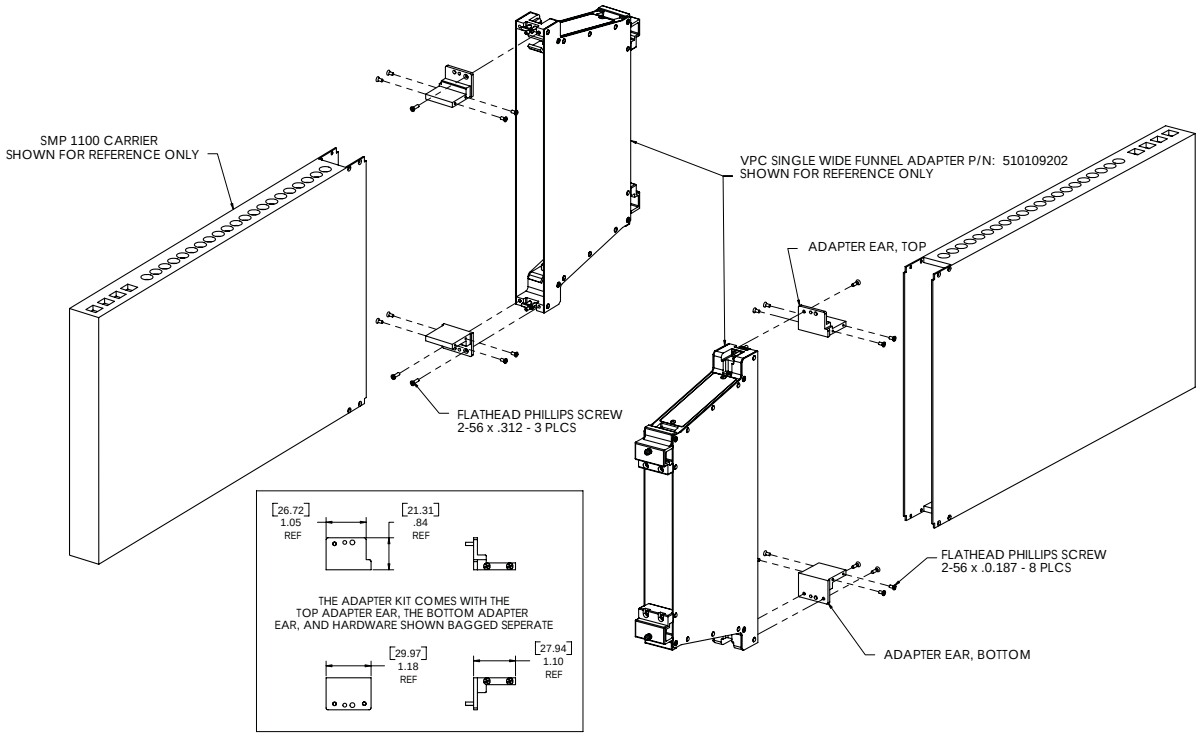
FOR S6: If "C" is greater than 1" [25.4 mm] – use Part # 310 113 430
(Maximum depth of 5" [127 mm])
FOR G12
& 9025TR: If "C" is greater than 1" [25.4 mm] – use Part # 310 113 406
(Maximum depth of 2.5" [63.5 mm])
*Dimension shown is for illustration purposes only.

TECH TIP #8 • Drawing for Part # 510 109 354



- VXI Technology's SMIP 1200 carriers come with ejectors that will interfere with VPC's funnels
- VPC Part # 510 109 354 will allow the carriers to mount directly to VPC double wide funnels
- VPC recommends using VPC funnel Part # 510 109 118 but the kit will work with other double wide funnels using the provided "T-Bar" kit

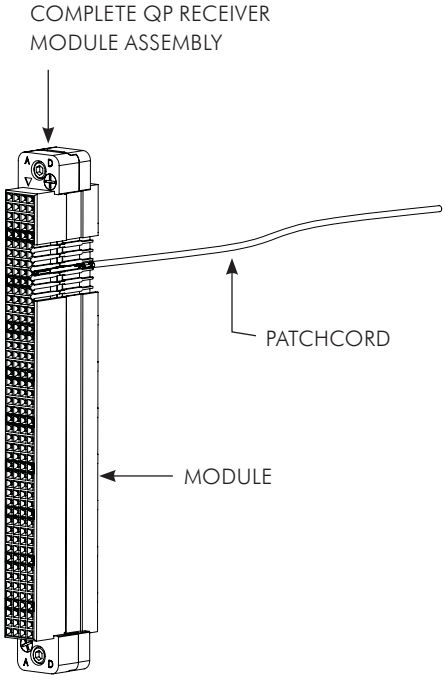
TECH TIP #9 • Drawing for Part # 510 109 355



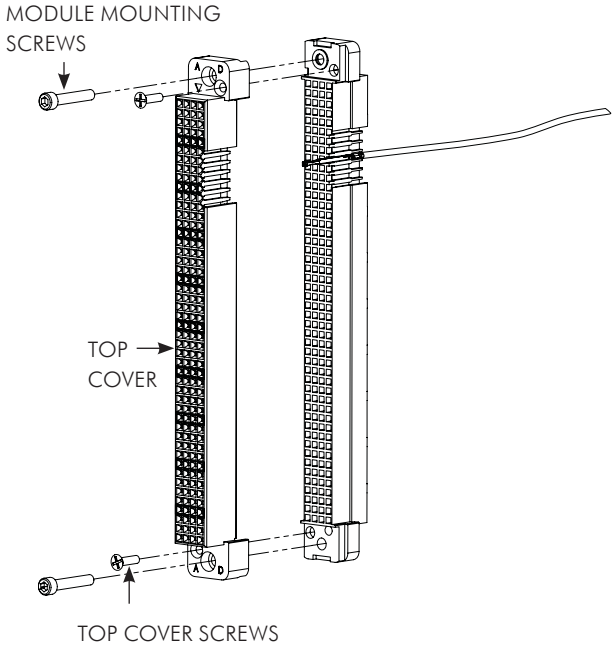
- VXI Technology's SMIP 1100 carriers come with ejectors that will interfere with VPC's funnels
- To overcome this – replace the top and bottom blocks with VPC's Mounting Ear Kit, Part # 510 109 355
- VPC recommends using VPC funnel Part # 510 109 202 but the kit will work with other single wide funnels using the provided "T-Bar" kit

TECH TIP #10 • Contact Removal for QuadraPaddle Receiver Modules

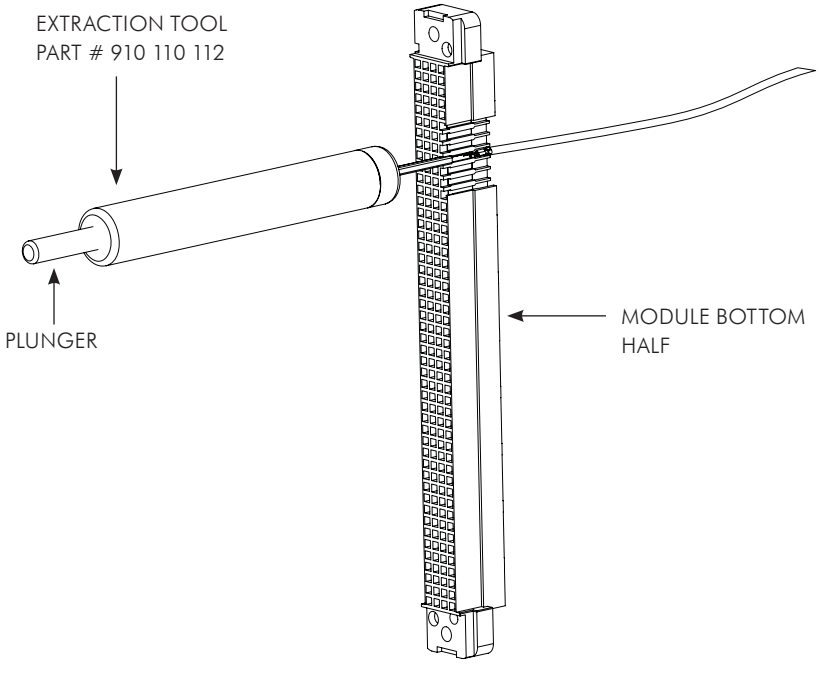
1. This module has a contact fully seated in it.
   To remove the contact, follow the next 4 directions.



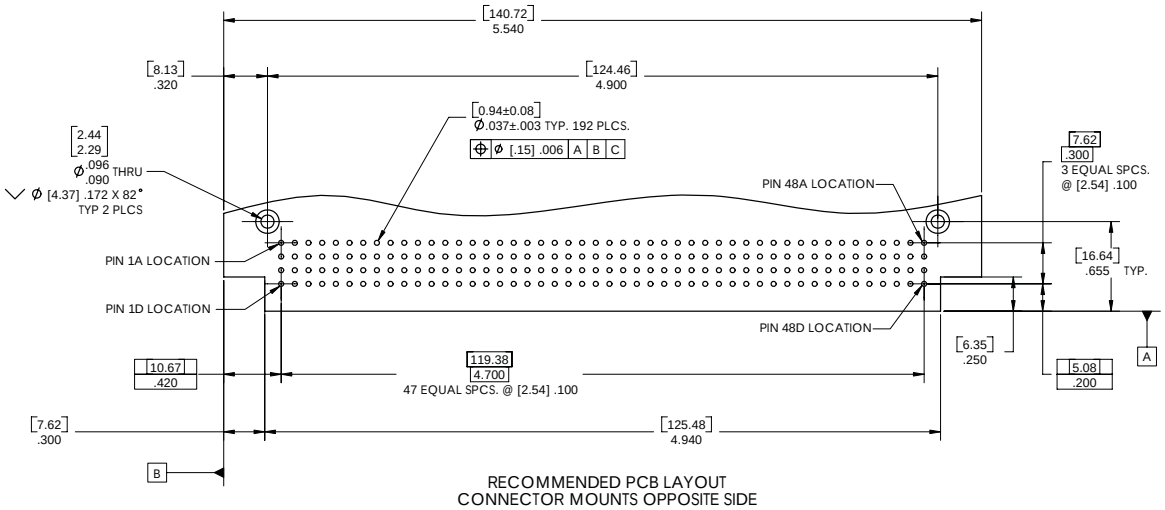
2. Remove module mounting screws.
3. Remove the top cover screws.
4. Remove top cover.



5. Make sure the tool is completely seated before pressing the plunger.
6. See the QuadraPaddle User's Manual for more details.

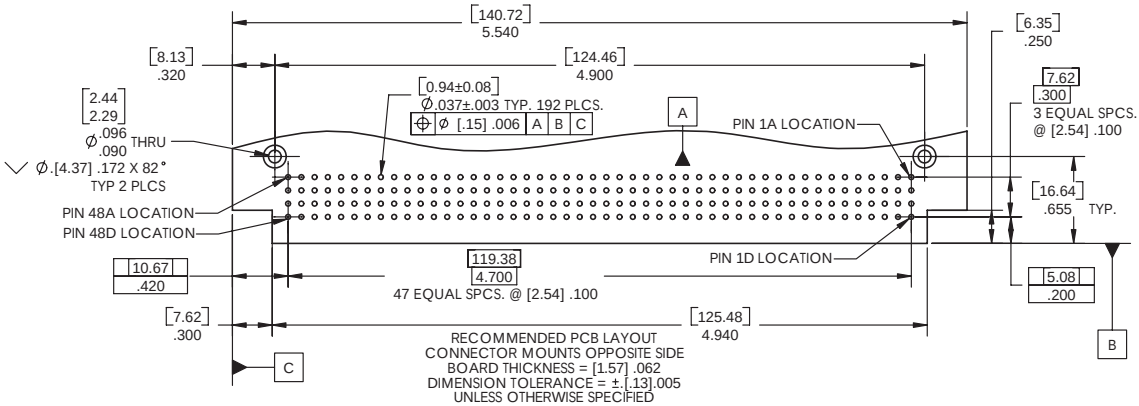


TECH TIP #11 • PCB Layouts – QuadraPaddle 192 Position Right Angle Contact Modules



RECOMMENDED PCB LAYOUT
CONNECTOR MOUNTS OPPOSITE SIDE
BOARD THICKNESS = [1.57] .062
DIMENSION TOLERANCE = ±[.13] .005
UNLESS OTHERWISE SPECIFIED

RCV • Part # 510 109 315

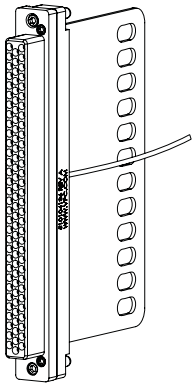


RECOMMENDED PCB LAYOUT
CONNECTOR MOUNTS OPPOSITE SIDE
BOARD THICKNESS = [1.57] .062
DIMENSION TOLERANCE = ±.[.13].005
UNLESS OTHERWISE SPECIFIED

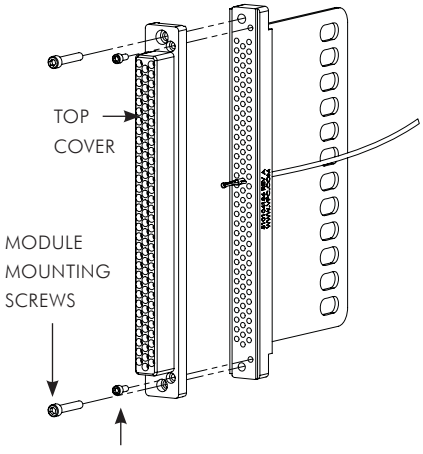
ITA • Part # 510 109 316

TECH TIP #12 • Contact Removal for TriPaddle Receiver Modules

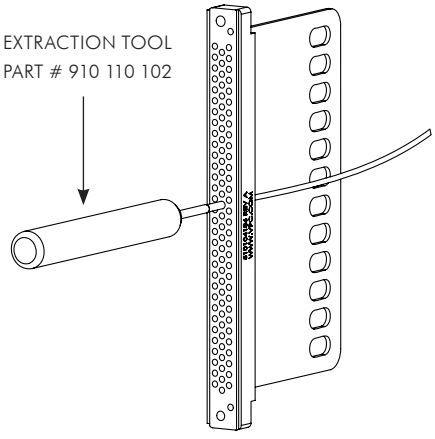
1. This module has a contact fully seated in it. To remove the contact, follow the next 4 directions.



2. Remove module mounting screws.
3. Remove top cover screws.
4. Remove top cover.



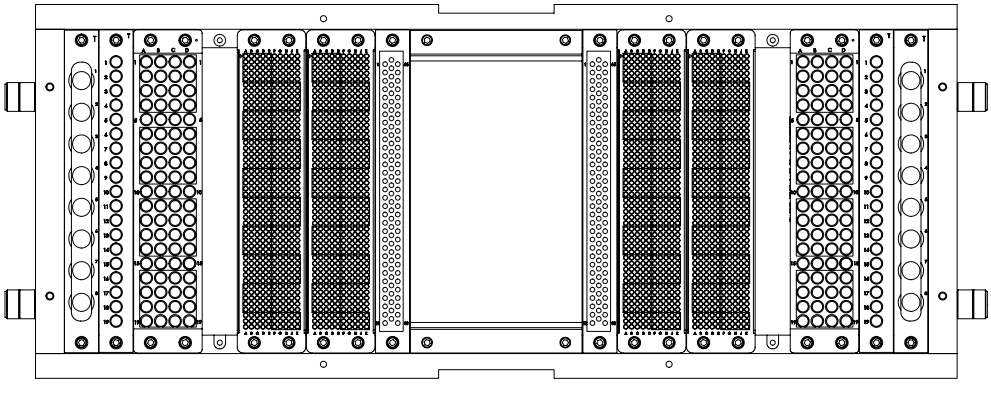
5. Push the contact extraction tool until the contact comes out of the module.



TECH TIP #13 • Frame Loading

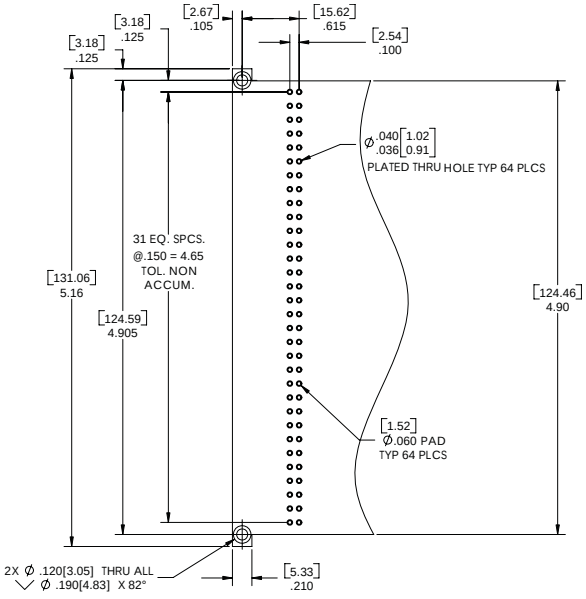
To ensure adequate electrical engagement of the contacts in the Virginia Panel interface, the following is a guide intended to minimize deflection of the receiver and ITA frames.

It is recommended to load modules with the highest forces (power and coaxial contacts) closest to the outside of the receiver and ITA frames in the module slots. Keep the signal pins loaded as close to the center as possible.



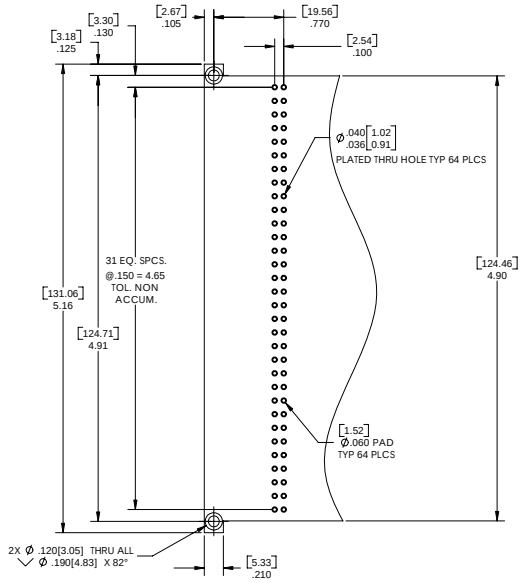
For configurations that exceed the recommended loading conditions contact a VPC Application Engineer for options.

TECH TIP #14 • PCB Layouts – TriPaddle 64 and 96 Position Right Angle Contact Modules



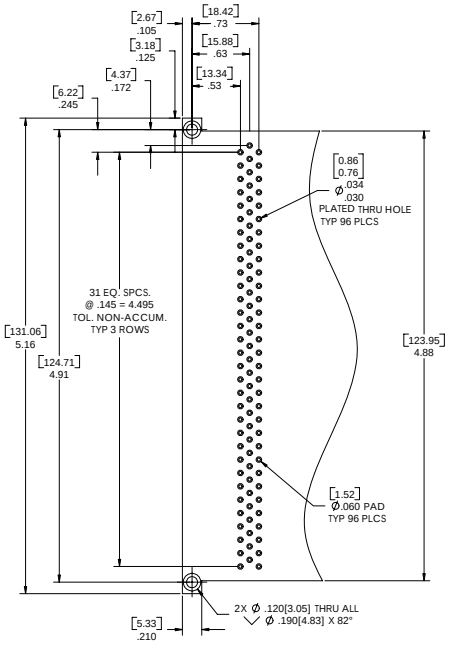
64 PIN RECEIVER PCB LAYOUT
SOLDER SIDE SHOWN

RCV • Part # 510 104 187



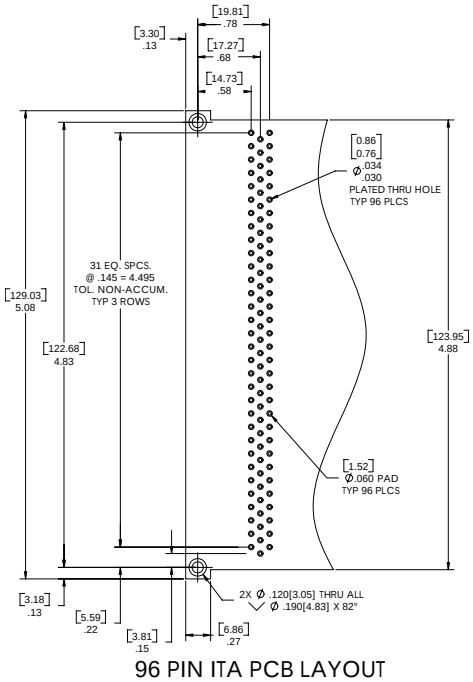
64 PIN ITA PCB LAYOUT
SOLDER SIDE SHOWN

ITA • Part # 510 108 112



96 PIN RECEIVER PCB LAYOUT
SOLDER SIDE SHOWN

RCV • Part # 510 104 135



96 PIN ITA PCB LAYOUT
SOLDER SIDE SHOWN

ITA • Part # 510 108 125

TECH TIP #15 • QuadraPaddle Bandwidth

Virginia Panel QuadraPaddle contacts and modules have been successfully used in applications of ethernet transmission for 10/100 Mbits/s connected to a RJ45 connector. Testing of the QuadraPaddle connector module and contact by use of a Tektronix CSA803 Digital Sampling Oscilloscope and validation based on Time Dome Reflection Measurements has shown a low end bandwidth of 700MHz when wired using a 50 Ohm enviroment cabling (see Figure 1). This is based on standard accepted value of a –3dB rolloff for signal degradation. The contacts and module have shown –3dB rolloff response of 1.2 GHz as de-embedded from the overall response measurement of the connection system (see Figure 2).

ATTENUATION (S21)

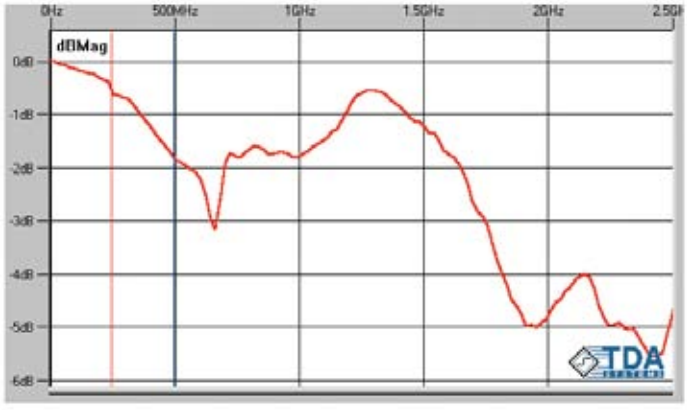


Figure 1. (–3dB at 0.70GHz)

Figure 2. 16" Blue cable female Z-Trace to male VP to female Z-Trace with cable and Z-Trace connectors de-embedded
(–3 dB at 1.2 GHz)

Cross Reference for S6, G12 and 9025TR Accessories

ACCESSORIES	S6 RECEIVER 310 122 100	15" S6 RECEIVER 310 122 101	20" S6 RECEIVER 310 122 108	15" G12 RECEIVER 310 104 325	20" G12 RECEIVER 310 104 334	20" 9025TR 310 104 363	20" SLIDE KIT 310 113 409	24" SLIDE KIT 310 113 410	28" SLIDE KIT 310 113 451	30" SLIDE KIT 310 113 411
CABLE TRAY 310 113 424		X	X	X	X	X			X	X
KEYBOARD TRAY KIT 310 113 439		X	X	X	X	X	X	X	X	X
EXTENDED LEG KIT, 31" 310 113 415			X		X	X	X	X	X	X
INSTRUMENT BRACKET KIT WITH STRAIN RELIEF * 310 113 453		X	X	X	X	X			X	X
RACK EXTENDER KIT, S6 310 113 430	X	X	X				X	X	X	X
RACK EXTENDER KIT, G12 310 113 406				X	X		X	X	X	X
GAP COVER ** 310 113 433				X	X		X	X	X	X
15" PLATFORM KIT 310 113 435	X						X	X	X	X
REAR COVER, S6 *** 310 113 431	X									
REAR COVER, S6 *** 310 113 444		X								
REAR COVER, G12 *** 310 113 421				X	X					
RACK EXTENDER KIT, 9025TR 310 113 494						X				

NOTES:
* The Instrument Bracket Kit will not work with the Cable Tray.
** The Gap Cover will not work when using an Rack Extender Kit.
*** The Rear Covers are for use in tabletop applications.

Cross Reference for Mating Contacts

RECEIVER CONTACTS	ITA CONTACTS																																
	610 102 107	610 102 110	610 102 114	610 102 117	610 103 115	610 103 129	610 103 130	610 103 136	610 103 140	610 103 150	610 103 161	610 103 169	610 110 108	610 110 113	610 110 129	610 110 169	610 113 133	610 113 134	610 113 145	610 115 124	610 115 125	610 132 101	610 132 104	610 132 105	610 132 106	610 138 109	610 138 111	610 138 112	610 138 115	610 143 101	610 141 101	610 141 102	610 141 103
610 102 108	X																																
610 102 109		X																															
610 102 114			X																														
610 102 116				X																													
610 104 114					X	X	X	X	X	X	X																						
610 104 140					X	X	X	X	X	X	X																						
610 104 141					X	X	X	X	X	X	X																						
610 104 142					X	X	X	X	X	X	X																						
610 104 157												X																					
610 104 160					X	X	X	X	X	X	X																						
610 110 101													X	X	X	X																	
610 110 104													X	X	X	X																	
610 110 128													X	X	X	X																	
610 110 167													X	X	X	X																	
610 113 131																	X																
610 113 132																		X															
610 113 144																			X														
610 116 112																				X	X												
610 131 101																						X											
610 131 104																							X										
610 131 106																								X									
610 131 107																								X									
610 131 108																									X								
610 138 100																										X	X	X	X				
610 138 116																										X	X	X	X				
610 142 101																														X			
610 142 102																														X			
610 140 101																															X		
610 140 102																																X	
610 140 103																																	X

Cross Reference for Receiver Contacts and Receiver Modules

RECEIVER CONTACTS	RECEIVER MODULES																											
	510 104 120	510 104 123	510 104 133	510 104 134	510 104 136	510 104 149	510 104 150	510 104 155	510 104 160	510 104 185	510 104 203	510 104 206	510 104 224	510 104 227	510 104 243	510 104 249	510 104 251	510 104 261	510 150 115	510 150 116	510 150 130	510 150 131	510 150 135	510 150 136	510 150 137	510 150 147	510 104 267	510 104 270
610 102 108											X																	
610 102 109																	X											
610 102 114													X															
610 102 116																	X											
610 104 114	X						X								X													
610 104 140	X						X								X													
610 104 141	X						X								X													
610 104 142	X						X								X													
610 104 157																X												
610 110 101				X	X	X						X			X			X										
610 110 104				X	X	X						X			X			X										
610 110 128				X	X	X						X			X			X										
610 110 167				X	X	X						X			X			X										
610 113 131			X															X										
610 113 132			X															X										
610 113 144								X																				
610 116 112		X										X																
610 131 101									X																			
610 131 104									X																			
610 131 106										X																		
610 131 107										X																		
610 131 108	X	X					X					X			X													
610 138 100																					X	X	X	X	X	X		
610 138 116																			X	X								
610 138 117*																					X	X	X		X			
610 138 118*																					X	X		X		X		
FIBER OPTIC TERMINAL														X													X	X
610 140 101																											X	X
610 140 102																											X	X
610 140 103																											X	X
610 142 101																											X	X
610 142 102																											X	X

NOTE:
* Must be used with 610 138 100

Cross Reference for Receiver Contacts and Tools

RECEIVER CONTACTS	CRIMP TOOLS AND LOCATORS														EXTRACTION							MISCELLANEOUS									
	910 101 102	910 101 103	910 101 115	910 101 124	910 101 125	910 101 131	910 101 132	910 102 106	910 104 107	910 104 116	910 104 127	910 104 134	910 104 139	910 104 145	910 110 102	910 110 112	910 112 104	910 112 115	910 112 117	910 112 118	910 112 123	910 121 119	910 121 131	910 121 143	910 121 144	910 121 149	910 121 156	910 121 160	910 121 167	910 121 170	910 121 179
610 102 108																		X													
610 102 109				X															X												
610 102 114																															
610 102 116				X															X												
610 104 114			X														X					X	X	X			X				
610 104 140																	X						X				X				
610 104 141			X														X					X	X	X			X				
610 104 142																	X						X		X	X	X	X	X		
610 104 157								X					X						X												
610 110 101		X							X		X				X																
610 110 104															X																
610 110 128	X									X					X																
610 110 167		X							X		X				X																
610 113 131	X											X			X																
610 113 132	X											X			X																
610 113 144																															
610 116 112																	X														
610 131 101																															
610 131 104																															
610 131 106																															
610 131 107																															
610 131 108																	X														
610 138 100																															
610 138 116					X											X															
610 138 117*																															
610 138 118*																															
FIBER OPTIC TERMINAL																				X										X	
610 140 101							X														X										X
610 140 102						X															X										X
610 140 103							X														X										X
610 142 101	X													X							X										
610 142 102																					X										

NOTE:
* Must be used with 610 138 100

Cross Reference for ITA Contacts and ITA Modules

ITA CONTACTS	ITA MODULES																					
	510 108 101	510 108 111	510 108 115	510 108 124	510 108 126	510 108 131	510 108 132	510 108 138	510 108 144	510 108 160	510 108 169	510 108 176	510 108 178	510 108 179	510 108 189	510 108 210	510 108 245	510 151 105	510 151 106	510 151 107	510 151 108	510 108 262	510 108 263
610 102 107												X											
610 102 110														X									
610 102 114											X												
610 102 117														X									
610 103 115		X					X									X							
610 103 129		X					X									X							
610 103 130		X					X									X							
610 103 136		X					X									X							
610 103 140		X					X									X							
610 103 150		X					X									X							
610 103 161		X					X									X							
610 103 169														X									
610 110 108	X				X	X							X			X	X						
610 110 113	X				X	X							X			X	X						
610 110 129	X				X	X							X			X	X						
610 110 169	X				X	X							X			X	X						
610 113 133				X													X						
610 113 134				X													X						
610 113 145								X															
610 115 124			X										X										
610 115 125			X										X										
610 132 101									X														
610 132 104									X														
610 132 105										X													
610 132 106		X	X				X						X			X							
610 138 109																		X	X				
610 138 111																							
610 138 112																		X	X				
610 138 115																		X	X	X	X		
FIBER OPTIC TERMINAL															X								
610 140 101																						X	X
610 140 102																						X	X
610 140 103																						X	X
610 143 101																						X	X

Cross Reference for ITA Contacts and Tools

ITA CONTACTS	CRIMP TOOLS AND LOCATORS																EXTRACTION						MISCELLANEOUS									
	910 101 102	910 101 103	910 101 115	910 101 118	910 101 124	910 101 131	910 101 132	910 102 104	910 102 107	910 104 107	910 104 118	910 104 128	910 104 135	910 104 139	910 104 140	910 104 144	910 110 102	910 110 111	910 112 104	910 112 117	910 112 118	910 112 123	910 121 126	910 121 142	910 121 144	910 121 149	910 121 155	910 121 157	910 121 160	910 121 167	910 121 170	910 121 180
610 102 107																																
610 102 110					X															X												
610 102 114																																
610 102 117					X															X												
610 103 115			X																X				X	X			X	X				
610 103 129																			X				X	X			X	X				
610 103 130			X																X				X	X			X	X				
610 103 136				X								X							X				X	X			X	X				
610 103 140																			X				X	X	X	X	X	X	X	X		
610 103 150								X											X				X	X			X	X				
610 103 161			X	X								X							X				X	X			X	X				
610 103 169									X					X						X												
610 110 108		X								X							X															
610 110 113																	X															
610 110 129	X										X						X															
610 110 169		X								X							X															
610 113 133	X												X				X															
610 113 134	X												X				X															
610 113 145																																
610 115 124																			X													
610 115 125																			X													
610 132 101																																
610 132 104																																
610 132 105																																
610 132 106																			X													
610 138 109		X													X			X														
610 138 111																		X														
610 138 112		X													X			X														
610 138 115																		X														
FIBER OPTIC TERMINAL																					X										X	
610 141 101							X															X										X
610 141 102						X																X										X
610 141 103							X															X										X
610 143 101	X															X						X										

Cross Reference for Module Screw Sizes

Module Part #	SOCKETHEAD 4-40 X .375 SST	SOCKETHEAD 4-40 X 0.5 BLACK	SOCKETHEAD 4-40 X 0.5 SST	SOCKETHEAD 4-40 X .56 SST	SOCKETHEAD 4-40 X .625 SST	SOCKETHEAD 4-40 X .750 SST	FLATHEAD 2-56 X .5 SST	SOCKETHEAD 2-56 X .187 SST	FLATHEAD 2-56 X .25 SST	BUTTONHEAD 2-56 X .25 SST	FLATHEAD 2-56 X .312 SST	FLATHEAD 2-56 X .375 SST	BUTTONHEAD 2-56 X .375 SST	SOCKETHEAD 0-80 X .25 SST
510 104 120				X										X
510 104 123				X										
510 104 128					X		X	X					X	
510 104 133					X			X						
510 104 134					X			X						
510 104 135					X			X						
510 104 136					X			X						
510 104 139					X			X				X		
510 104 149					X							X		
510 104 150				X										
510 104 155				X										
510 104 160		X												
510 104 185					X									
510 104 203			X											
510 104 206					X				X					
510 104 224					X									
510 104 243					X				X					
510 104 249						X			X					
510 104 251						X				X				
510 104 260	X													
510 104 261					X			X						
510 104 266				X										
510 108 101				X										
510 108 111				X										
510 108 112				X										
510 108 115				X										
510 108 124				X										
510 108 125				X										
510 104 187				X				X						
510 104 267				X										X
510 104 270				X										X

Cross Reference for Module Screw Sizes

Module Part #	SOCKETHEAD 4-40 X .375 SST	SOCKETHEAD 4-40 X 0.5 BLACK	SOCKETHEAD 4-40 X 0.5 SST	SOCKETHEAD 4-40 X .56 SST	SOCKETHEAD 4-40 X .625 SST	SOCKETHEAD 4-40 X .750 SST	FLATHEAD 2-56 X .5 SST	SOCKETHEAD 2-56 X .187 SST	FLATHEAD 2-56 X .25 SST	BUTTONHEAD 2-56 X .25 SST	FLATHEAD 2-56 X .312 SST	FLATHEAD 2-56 X .375 SST	BUTTONHEAD 2-56 X .375 SST	SOCKETHEAD 0-80 X .25 SST
510 108 126				X										
510 108 131				X										
510 108 132				X										
510 108 138				X										
510 108 140				X									X	
510 108 144					X									
510 108 148				X					X			X		
510 108 160					X									
510 108 169					X									
510 108 176			X											
510 108 178				X										
510 108 179					X									
510 108 210				X										
510 108 242				X										
510 108 245				X										
510 108 251				X										
510 150 115						X					X			
510 150 116						X					X			
510 150 130						X					X			
510 150 131						X					X			
510 150 135						X					X			
510 150 136						X					X			
510 150 137						X					X			
510 150 147						X					X			
510 151 105					X									
510 151 106					X									
510 151 107					X									
510 151 108					X									
510 104 227					X									
510 108 189				X										
510 108 262				X										
510 108 263				X										

Part #	Description	Page Number
111 107 138	Edge Card Adapter, Universal, for .062 PCB	110
111 107 140	Edge Card Adapter, Versamount, for .062 PCB	110
111 107 148	Edge Card Adapter, for .093 PCB	110
276 198	0.50" [12.7 mm] Spacer for 10 Module ITA (allows wide enclosures to be mounted to Part # 410 104 123)	65, 70
276 199	0.50" [12.7 mm] Spacer for 6 Module ITA (allows wide enclosure to be mounted to Part # 410 104 118)	59, 63
310 104 114	Receiver, 9025, 25 Module with Right Handle, Single Tier	83, 86
310 104 115	Receiver, 9050, 50 Module Double Tier	93, 96
310 104 127	Receiver, 9025, 25 Module VXI, C-Size Interlocking	85, 87
310 104 248	Receiver, 9050, 50 Module, VXI and Discrete Wiring, Double Tier	95, 98
310 104 307	Receiver, 9075, 75 Module, Triple Tier	104, 105
310 104 317	Receiver, G10, 10 Module	65, 66
310 104 318	Receiver, G6, 6 Module with Keying Feature	59, 60
310 104 325	Receiver, G12, 12 Module with 15" Platform	36, 37, 38, 39
310 104 334	Receiver, G12, 12 Module with 20" Platform	36, 37, 38, 40
310 104 344	Receiver, G6, 6 Module with Keying Feature and EMI Gasket	59
310 104 345	Receiver, 9025, 25 Module with Flush Hangers and EMI Gasket, Single Tier	83
310 104 360	Receiver, 10 Module with 4.34" [110.24 mm] Extended Handle	65
310 104 363	Receiver, 9025TR, 25 Module, with 20" Platform (slide kit required)	44, 45
310 104 368	Receiver, 9050, 50 Module, Dual Discrete Wiring Tiers	95
310 113 151	Protective Cover, 9050, Receiver	93, 101
310 113 154	Protective Cover, G10, Receiver	65, 69
310 113 158	Protective Cover, G6, Receiver	59, 63
310 113 163	Protective Cover, 9025, 9025VXI & 9025TR, Receiver	44, 47, 83, 85, 91
310 113 184	Vertical Hinged Mounting Frame, 9050, 10U	93, 101
310 113 248	VXI Plug & Play Adapter Plate for 8U Chassis (alos fits Racal 7U Chassis)	85, 108
310 113 257	VXI Plug & Play Adapter Plate for 9U Chassis	85, 108
310 113 272	VXI Plug & Play Adapter Plate for Racal Instruments 9U Chassis	85, 108
310 113 285	Protective Cover, 9050VXI, Receiver	95, 102
310 113 299	Adapter Kit for Agilent Technologies C- Size VXI E8400 used with Double Tier Receiver	95, 108
310 113 303	Adapter Kit for Tektronix VX1410A, VX1401A and VX1420A used with Double Tier Receiver	95, 108
310 113 316	Vertical Hinged Mounting Frame, 9025, 8U	83, 90
310 113 320	Vertical Hinged Mounting Frame, 9025, 9U	83, 90
310 113 322	Vertical Hinged Mounting Frame, G18, 5U	75, 78
310 113 327	Protective Cover, G18, Receiver	75, 79
310 113 328	Vertical Hinged Mounting Frame, G18, 9U	75, 78
310 113 331	Hinged Shelf Mounting Frame, G18, Horizontal Configuration	75
310 113 341	Vertical Hinged Mounting Frame, G6, 5U, 1 Position	59, 63
310 113 342	Vertical Hinged Mounting Frame, G10, 5U	65, 69
310 113 352	Protective Cover, Receiver, 75 Module	104, 107
310 113 358	Vertical Hinged Mounting Frame, Blank, 5U	53, 59, 65, 75
310 113 364	VXI Plug and Play Plate, 14U (for Part #310 104 248)	95
310 113 371	Chassis Mount Kit for Pickering 40-918, 18 Slot	53, 59, 65, 71, 75
310 113 382	Vertical Hinged Mounting Frame, G10, 9U	65, 69
310 113 391	Vertical Hinged Mounting Frame, G2, 5U, 3 Position, (2 Blank Plates Included)	53, 57
310 113 394	Protective Cover, G2, Receiver (included with Part # 310 120 110)	53, 57
310 113 395	Fixed Mounting Panel, G2, 5U, 3 Position, (2 Blank Plates Included)	53
310 113 397	Vertical Hinged Mounting Frame, G6, 5U, 2 Positions	59
310 113 402	Protective Cover, Receiver, G12	36, 37, 38, 42
310 113 406	Rack Extender Kit, G12, 1.5" Deep	37, 38, 42
310 113 408	Vertical Hinged Mounting Frame, G10, 5U, Cutout on Right	65
310 113 409	20" Slide Kit, Fits 18"–21.8" Deep Racks, Supports 180 lbs	28, 37, 38, 44, 48
310 113 410	24" Slide Kit, Fits 22"–25.8" Deep Racks, Supports 180 lbs	28, 37, 38, 44, 48
310 113 411	30" Slide Kit, Fits 28"–31.8" Deep Racks, Supports 180 lbs	28, 37, 38, 44, 48
310 113 412	Adjustable Leg Kit for the 20" Platform, 27", Supports 350 lbs.	44, 48
310 113 414	Adjustable Leg Kit for the 20" Platform, 29", Supports 350 lbs.	44, 48
310 113 415	Adjustable Leg Kit for the 20" Platform, 31", Supports 350 lbs.	37, 38, 44, 48
310 113 417	Chassis Mount Kit for National Instruments PXI-1045 and PXI-1044 Chassis	53, 59, 65, 71, 75, 79
310 113 421	Rear Cover, G12, Tabletop Configuration	36
310 113 424	Cable Tray, Slide Configuration, for Strain Relief and Cable Management	28, 37, 38, 44, 49
310 113 430	Rack Extender Kit, S6, 4" Deep	28, 29, 34
310 113 431	Rear Cover, S6, Tabletop Configuration, for Part # 310 122 100	27, 34
310 113 432	Protective Cover, Receiver, S6	27, 28, 29, 34
310 113 433	Gap Cover, G12, Rack Mount	37, 38, 42
310 113 434	Locking Handle Spring Plunger Accessory	75
310 113 435	15" Platform Kit	27, 28
310 113 439	Keyboard Tray Kit, Slide Configuration, Keyboard with Touchpad Mouse Included	28, 37, 38, 44, 49
310 113 444	Rear Cover, S6, Tabletop Configuration, for Part # 310 122 101	27, 34
310 113 451	28" Slide Kit, Fits 26"–29.8" Deep Racks, Supports 180 lbs	28, 37, 38, 44, 48
310 113 453	Instrument Bracket Kit with Strain Relief	28, 37, 38, 44, 49
310 113 465	Vertical Hinged Mounting Frame, iCon960, 5U, 2 Positions	19, 22
310 113 466	Cover Plate, iCon960, for Vertical Hinged Mounting Frame	19
310 113 474	Adjustable Leg Kit for the 20" Platform, 34", Supports 350 lbs.	44, 48
310 113 489	Protective Cover, iCon960, Receiver	19, 23
310 113 494	Rack Extender Kit, 9025TR, 1.5" Deep	44, 47
310 118 112	Keying Pin Kit, Receiver/ITA	53, 59, 71
310 120 101	Receiver, G18, 18 Module for Discrete Wiring	75, 76
310 120 102	Receiver, G18, 18 Module with Flush Hangers	75

Part #	Description	Page Number
310 120 110	Receiver, G2, 2 Module with Keying Feature	53, 54
310 122 100	Receiver, S6, 6 Module	27, 29, 30
310 122 101	Receiver, S6, 6 Module with 15" Platform	27, 28, 31
310 122 108	Receiver, S6, 6 Module with 20" Platform	27, 28
310 124 102	Receiver, iCon960, 2 QuadraPaddle Modules, Fully Loaded with Round Posts (510 150 135)	19
310 124 103	Receiver, iCon960, 2 QuadraPaddle Receiver Wire Crimp Modules (510 150 116)	19, 20
310 124 105	Receiver, iCon960, 2 192 Position QuadraPaddle Modules (510 150 115) and 2 96 Position TriPaddle Modules (510 104 136)	19
410 104 110	ITA, 9050, 50 Module, Double Tier	93, 97
410 104 111	ITA, 9025, 25 Module, Single Tier	83, 85, 88, 93, 95
410 104 118	ITA, 6 Module	59, 62
410 104 123	ITA, 10 Module	65, 68
410 104 181	ITA, 9050, 50 Module, VXI and Discrete Wiring, Double Tier	95, 99
410 104 258	ITA, 9075, 75 Module, Triple Tier	104, 106
410 104 272	ITA with Removable Cover, G10, 10 Module	65, 67
410 104 273	ITA with Removable Cover, G6, 6 Module with Keying Feature	59, 61
410 104 322	ITA, G12, Front Mount, 12 Module with Protective Cover	36, 37, 38, 41, 181
410 104 331	ITA, 6 Module, 0.87" [22 mm] Thick	59
410 104 375	ITA, 10 Module, 0.87" [22 mm] Thick	65
410 104 451	ITA, 9025, 25 Module, Front Mount	44, 46
410 112 198	Enclosure, 25 Module, Hinged Cover Plate, 4" Deep	65, 83, 85, 89, 93, 100
410 112 199	Enclosure, 50 Module, Hinged Cover Plate, 4" Deep	93, 100
410 112 237	Enclosure, 6 Module with 2 Cable Clamps (for ITA Part # 410 104 118)	59, 63
410 112 252	Enclosure, 10 Module with 3 Cable Clamps (for ITA Part # 410 104 123)	65, 70
410 112 255	Enclosure, 25 Module, no Handles	83, 85, 89, 93, 100
410 112 291	Enclosure, 10 Module with Hinged Cover Plate (for ITA Frame Part # 410 104 123)	65, 70
410 112 309	Enclosure, 25 Module, Large, no Handles	83, 85, 89, 93, 100
410 112 336	Enclosure, 50 Module, 50 Module 4" Adapter for 25 Module, Hinged Cover	83, 85, 89, 93, 100
410 112 368	Enclosure, 25 Module, Large	83, 85, 89, 93, 100
410 112 375	Enclosure, 50 Module, Hinged Cover Plate, 8" Deep	83, 85, 89, 93, 100
410 112 401	Enclosure, 6 Module, 4" Deep with Hinge (for ITA Part # 410 104 118)	59
410 112 422	Adapter Plate, 9050 Enclosures to 9025 ITA (ITA Positioned on Upper Part of Enclosure)	83, 85, 91
410 112 424	Adapter Plate, allows 10 Module ITA to accept 25 Module Enclosures	65, 70
410 112 463	Enclosure, 50 Module VXI, Hinged Cover Plate, 6" Deep	95, 100
410 112 469	Adapter Plate, 9050VXI Enclosure to 9025 ITA (ITA Centered on Enclosure)	85
410 112 527	Enclosure, G18, 4" Deep	75, 78
410 112 541	Protective Cover, G18, ITA	75, 79
410 112 561	Enclosure, 75 Module, 6" Deep	104, 107
410 112 573	Protective Cover, ITA, 75 Module	104, 107
410 112 578	Protective Cover, 9025, 9025VXI & 9025TR, ITA	44, 47, 83, 85, 91, 93, 95
410 112 579	Protective Cover, 9050, ITA	93, 102
410 112 582	Protective Cover, 9050VXI, ITA	95, 102
410 112 599	Threaded Coupling Adapter, ITA, G2 for Conduit Harnessing Assemblies/Clamps	53, 57
410 112 665	Enclosure, G12, Front Mount	36, 37, 38, 42
410 112 680	Protective Cover, G2, ITA (included with Part # 410 120 110)	53, 57
410 112 681	Protective Cover, ITA, G12 (included with Part # 410 104 322)	36, 37, 38, 42
410 112 684	Protective Cover, ITA, 6 Module (included with Part # 410 104 273)	59, 63
410 112 685	Protective Cover, G10, ITA (included with Part # 410 104 272)	65, 69
410 112 686	Enclosure, G2 (for ITA # 410 120 112)	53
410 112 700	Protective Cover, ITA, S6 (Included with 410 122 100)	27, 28, 29, 34
410 112 701	Enclosure, S6, 1.75" x 18" x 8"	27, 28, 29, 33
410 112 702	Enclosure, S6, 1.75" x 18" x 8" for Discrete Wiring	27, 28, 29, 33
410 112 703	Enclosure, S6, 4" x 18" x 12"	27, 28, 29, 33
410 112 712	Enclosure, S6, 4" x 18" x 12" for Discrete Wiring	27, 28, 29
410 112 770	Enclosure, 50 Module VXI, L-Shaped	85, 90, 93, 95, 101
410 112 772	Adapter Plate, 9050VXI Enclosure to 9025 ITA (ITA Positioned on Upper Part of Enclosure)	83, 85
410 112 775	Enclosure, ITA, iCon960, 2 Cable Clamps	19, 22
410 112 804	Protective Cover, iCon960, ITA	19, 23
410 112 823	Enclosure, 25 Module, For Front Mount ITA (410 104 451)	44, 47
410 120 110	ITA with Removable Cover, G2, 2 Module with Keying Feature	53, 55
410 120 111	ITA, G18, 18 Module	75, 77
410 120 112	ITA, G2, 2 Module	53, 56
410 120 120	ITA, G2, 2 Module with 10 Module Enclosure and Adapter Plate	53
410 122 100	ITA, S6, 6 Module	27, 28, 29, 32
410 124 103	ITA, iCon960, 2 QuadraPaddle Modules (510 151 108), Fully Loaded with Round Posts for PCB Mounting	19
410 124 104	ITA, iCon960, 2 QuadraPaddle Modules (510 151 106), Unloaded for Discrete Wiring	19, 21
410 124 105	ITA, iCon960, 2 192 Position QuadraPaddle Modules (510 151 105) and 2 96 Position TriPaddle Modules (510 108 126)	19
510 104 118	Blank Module, Receiver/ITA, 1 Module Position	176
510 104 120	Mini Coaxial Module, Receiver, 19 Position	143
510 104 123	Mini Power Module, Receiver, 19 Position	139
510 104 128	PCB Adapter, Receiver, TriPaddle, 64 Position, to PCB-Mounted 2x34 pin (BERG 65496-019) Connectors	134
510 104 129	Blank Shielding Module, Receiver/ITA, 1 Module Position	176
510 104 133	Thermocouple Module, Receiver, 64 Position	167
510 104 134	Signal Module, Receiver, TriPaddle, 64 Position	130
510 104 135	Signal Module, Receiver, TriPaddle, 96 Position with Right Angle Contacts for PCB Mounting	137, 188
510 104 136	Signal Module, Receiver, TriPaddle, 96 Position	131
510 104 139	PCB Adapter, Receiver, TriPaddle, 96 Position, to PCB-Mounted 1x96 Male DIN 41612 Connector	136
510 104 144	Blank Module, Receiver/ITA, 5 Module Positions	176

Part #	Description	Page Number
510 104 149	Signal Module, Receiver, TriPaddle, 256 Position	132
510 104 150	Mini Coaxial Module, Receiver, 76 Position	144
510 104 155	Twinaxial Module, Receiver, 8 Position	165
510 104 160	Pneumatic Module, Receiver, 5 Positions (3/8" ID)	172
510 104 178	Blank Module, VXI Receiver, 2 Module Positions	176
510 104 185	Pneumatic Module, Receiver, 10 Positions (1/8" ID)	172
510 104 187	Signal Module, Receiver, TriPaddle, 64 Position with Right Angle Contacts for custom PCB Mounting	135, 188
510 104 203	Coaxial Module, Receiver, 18 Ghz, 8 Position	161
510 104 206	TriPaddle Signal/Mini Power Module, Receiver, 16/16 Position	140
510 104 224	Coaxial Module, Receiver, 40 GHz, 8 Position	163
510 104 227	Fiber Optic Module, Receiver, 14 Position	170
510 104 243	TriPaddle Signal/Mini Coax Module, Receiver, 16/16 Position	145
510 104 249	Coaxial Module, 75 Ohm, Receiver, 32 Position	155
510 104 251	Coaxial Module, Receiver, 20 GHz and 75 Ohm HD, 32 Position	159
510 104 260	Vacuum Module, Receiver, 2 Port Positions	174
510 104 261	TriPaddle Signal/Thermocouple Module, Receiver, 84/12 Position	168
510 104 266	Vacuum Module, Receiver, 2 Port Positions with Filter	174
510 104 267	Micro Power and Micro Coaxial Module, Receiver, 50 Position	151
510 104 270	Micro Power and Micro Coaxial Module, Receiver, 120 Postion	152
510 104 276	Vacuum-Pneumatic Module, Receiver, 1-2 Position	175
510 104 280	Mini Coax Module, Receiver, 19 Position, Loaded with Right Angle Contacts (610 104 160)	148
510 108 101	Signal Module, ITA, TriPaddle, 64 Position	130
510 108 111	Mini Coaxial Module, ITA, 19 Position	143
510 108 112	Signal Module, ITA, TriPaddle, 64 Position with Right Angle Contacts for custom PCB Mounting	135, 188
510 108 115	Mini Power Module, ITA, 19 Position	139
510 108 124	Thermocouple Module, ITA, 64 Position	167
510 108 125	Signal Module, ITA, TriPaddle, 96 Position with Right Angle Contacts for custom PCB Mounting	137, 188
510 108 126	Signal Module, ITA, TriPaddle, 96 Position	131
510 108 131	Signal Module, ITA, TriPaddle, 256 Position	132
510 108 132	Mini Coaxial Module, ITA, 76 Position	144
510 108 138	Twinaxial Module, ITA, 8 Position	165
510 108 140	PCB Adapter, ITA, TriPaddle, 64 Position, to PCB-Mounted 2x34 pin (BERG 65496-019) Connectors	134
510 108 144	Pneumatic Module, ITA, 5 Position (3/8" ID)	172
510 108 148	PCB Adapter, ITA, TriPaddle, 96 Position, to PCB-Mounted 1x96 Male DIN 41612 Connector	136
510 108 160	Pneumatic Module, ITA, 10 Position (1/8" ID)	172
510 108 169	Coaxial Module, ITA, 40 GHz, 8 Position	163
510 108 176	Coaxial Module, ITA, 18 GHz, 8 Position	161
510 108 178	TriPaddle Signal/Mini Power Module, ITA, 16/16 Position	140
510 108 179	Coaxial Module, ITA, 20 GHz, 75 Ohm and 75 Ohm HD, 32 Position	155, 159
510 108 189	Fiber Optic Module, ITA, 14 Position	170
510 108 210	TriPaddle Signal/Mini Coax Module, ITA, 16/16 Position	145
510 108 242	Vacuum Module, ITA, 2 Port Positions	174
510 108 245	TriPaddle Signal/Thermocouple Module, ITA, 84/12 Position	168
510 108 251	Vacuum Module, ITA, 2 Port Positions with M22.5 x 1.5 Tap	174
510 108 262	Micro Power and Micro Coaxial Module, ITA, 50 Position	151
510 108 263	Micro Power and Micro Coaxial Module, ITA, 120 Position	152
510 108 264	Vacuum-Pneumatic Module, ITA, 1-2 Position	175
510 109 116	Strain Relief Plate for Select Receiver Modules	130, 131, 132, 139, 140, 143, 145, 167, 168, 178
510 109 117	Module Retainer Block Set For Discrete Wiring 2 Module Positions	85, 95, 108
510 109 118	C-Size InterConnect Adapter, Double Slot, 4 Module Positions	85, 95, 109
510 109 128	Connector Cover Plate for 25 Pin, D-Shell	109
510 109 129	Connector Cover Plate for 50 Pin, SCSI	109
510 109 138	Connector Cover Plate for 50 Pin, D-Shell	109
510 109 139	Cable Clamp Option (Replaces Blank Cover Plate when Cabling into Adapter)	109
510 109 142	Connector Cover Plate for 9 Pin, D-Shell	109
510 109 149	Connector Cover Plate for 15 Pin, D-Shell	109
510 109 150	Slot 0 Module Retainer Block Set for Discrete Wiring Modules for 1 Module	85, 95, 108
510 109 179	C-Size InterConnect Adapter, Single Slot for 2 Module Positions, Clamp Style	85, 95, 109
510 109 197	InterConnect Adapter for A or B to C Carrier (uses VME to VXI Adapter)	109
510 109 202	C-Size InterConnect Adapter, Single Slot (for use with Part # 510 109 355)	109
510 109 294	Fiber Optic Module Protective Dust Cover, Receiver	170
510 109 295	Fiber Optic Module Protective Dust Cover, ITA	170
510 109 296	Strain Relief Plate for ITA Modules	118, 119, 130, 131, 132, 139, 140, 143, 144, 145, 151, 152, 161, 163, 167, 168, 178
510 109 298	Strain Relief Plate for Receiver Modules	144, 151, 152, 161, 163, 178
510 109 299	Module Accessory Master Kit with Allen Wrenches	111
510 109 300	Module Accessory Kit Quantity 39, 0-80 X .25" Screws	111
510 109 301	Module Accessory Kit Quantity 26, .4-40 X .375" Screws	111
510 109 302	Module Accessory Kit Quantity 26, .4-40 X .625" Screws	111
510 109 303	Module Accessory Kit Quantity 26, .4-40 X .56" Screws	111
510 109 305	Module Accessory Kit Quantity 26, .2-56 X .187" Screws	111
510 109 306	Module Accessory Kit Quantity 26, .2-56 X .375" Screws	111
510 109 307	Module Accessory Kit Quantity 26, .2-56 X .25" Screws	111
510 109 311	Strain Relief Plate for Fiber Optic Receiver Modules	170, 178
510 109 315	192 Position Receiver Right Angle Header/Shroud Kit (for customer designed PCB, Module Not Included)	127, 186
510 109 316	192 Position ITA Right Angle Header/Shroud Kit (for customer designed PCB, Module Not Included)	127, 186
510 109 326	Connector Cover Plate for 25 Pin, D-Shell	109
510 109 327	Connector Cover Plate for 15 Pin, D-Shell	109

Part #	Description	Page Number
510 109 328	Connector Cover Plate for 9 Pin, D-Shell	109
510 109 329	Connector Cover Plate for 50 Pin, D-Shell	109
510 109 330	Connector Plate for BNC Connector	109
510 109 331	Cable Clamp Option (Replaces Blank Cover Plate when Cabling into Adapter)	109
510 109 337	C-Size InterConnect Adapter, Double Slot for use with Racal 1260-100 Carrier	85, 95, 109
510 109 338	160 pin DIN Universal Strain Relief Plate	178
510 109 339	192 Position ITA Module to PCB-mounted 2 x 68 Pin Female SCSI Connector	122
510 109 348	Strain Relief for QuadraPaddle 480 Position Module	119, 178
510 109 349	Strain Relief for QuadraPaddle 192 Position Module	118, 178
510 109 354	VXI Technology Mounting Ear Kit for SMP 1200 Carrier (for use with Part # 510 109 118)	109, 183
510 109 355	VXI Technology Mounting Ear Kit for SMP 1100 Carrier (for use with Part # 510 109 202)	109, 184
510 109 359	Module Accessory Kit, 26 4-40x .750" Screws	111
510 109 454	C-Size InterConnect Adapter, Single Slot, 2 Module Positions, Clamp Style with VXI Keying	109
510 150 115	Signal Module, Receiver, QuadraPaddle, 192 Position, Wire Crimp, Unloaded	118
510 150 116	Signal Module, Receiver, QuadraPaddle, 480 Position, Unloaded	119
510 150 125	PCB Adapter, Receiver, 192 Position to PCB-Mounted 2x68 Male SCSI Connectors	121
510 150 126	PCB Adapter, Receiver, QuadraPaddle, 192 Position, to PCB-Mounted 2x68 Female VHDCI Connectors	121
510 150 127	PCB Adapter, Receiver, 192 Position to PCB-Mounted 1x100 Female SCSI Connector	123
510 150 128	PCB Adapter, Receiver, 192 Positions, 2 x 96 pin Male SCSI Connector	124
510 150 130	Signal Module, Receiver, QuadraPaddle, 192 Position, Fully Loaded with 610 138 100 Twin Female Contacts	118
510 150 131	Signal Module, Receiver, QuadraPaddle, 480 Position, Fully Loaded with 610 138 100 Twin Female Contacts	119
510 150 135	Signal Module, Receiver, QuadraPaddle, 480 Position, Fully Loaded with Round Posts	119
510 150 136	Signal Module, Receiver, QuadraPaddle, 192 Position, Fully Loaded for Wire Wrap	118
510 150 137	Signal Module, Receiver, QuadraPaddle, 192 Position, Fully Loaded with Round Posts	118
510 150 141	PCB Adapter, Receiver, 192 Position to NI PXI-2532	126
510 150 142	PCB Adapter, 192 Position to NI PXI-2532 with 20" cables	126
510 150 143	PCB Adapter, 192 Position to NI PXI-2532 with 36" cables	126
510 150 147	Signal Module, Receiver, QuadraPaddle, 480 Position, Fully Loaded for Wire Wrap	119
510 150 148	PCB Adapter, Receiver, 192 Position QuadraPaddle to NI PXI-2529	125
510 150 152	Signal Module, Receiver, 192 Position with Right Angle Contacts for PCB Mounting	127
510 150 153	PCB Adapter, Receiver, 192 Position QuadraPaddle to NI PXI-2529 with six 20" cables	125
510 150 154	PCB Adapter, Receiver, 192 Position QuadraPaddle to NI PXI-2529 with six 36" cables	125
510 150 155	PCB Adapter, Receiver, QuadraPaddle, 192 Position, to PCB-Mounted 6x32-Pin Ribbon Cable Headers	125
510 151 105	Signal Module, ITA, QuadraPaddle, 192 Position, Unloaded	118
510 151 106	Signal Module, ITA, QuadraPaddle, 480 Position, Unloaded	119
510 151 107	Signal Module, ITA, QuadraPaddle, 192 Position, Round Post, Fully Loaded with 610 138 115	118
510 151 108	Signal Module, ITA, QuadraPaddle, 480 Position, Round Post, Fully Loaded with 610 138 115	119
510 151 121	Signal Module, ITA, 192 Position with Right Angle Contacts for PCB Mounting	127
510 151 123	PCB Adapter, ITA, QuadraPaddle, 192 Position, to PCB-Mounted 2x68 Female VHDCI Connectors	122
510 151 124	Signal Module, ITA, QuadraPaddle, 192 Position, Fully Loaded with 610 138 122 (wire wrap with anti-rotation)	118
515 109 001	Cable Assembly, 68 Pin Male VHDCI (Thumb Screws) to 68 Pin Male VHDCI (Thumb Screws), 18"	121
515 109 002	Cable Assembly, 68 Pin Male VHDCI (Thumb Screws) to 68 Pin Male VHDCI (Thumb Screws), 36"	121
515 109 007	Cable Assembly, 96 Pin Female SCSI (Spring Latch) to 96 Pin Female SCSI (Spring Latch), 18"	124
510 109 008	Cable Assembly, 96 Pin Female SCSI (Spring Latch) to 96 Pin Female SCSI (Spring Latch), 36"	124
515 109 113	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male VHDCI (Thumb Screws), 18"	121
515 109 114	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male VHDCI (Thumb Screws), 36"	121
515 109 117	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Female SCSI (Thumb Screws), 18"	121
515 109 118	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Female SCSI (Thumb Screws), 36"	121
515 109 119	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male SCSI (Spring Latch), 18"	121, 122
515 109 120	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male SCSI (Spring Latch), 36"	121
515 109 121	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male SCSI (Thumb Screws), 18"	121
515 109 122	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Male SCSI (Thumb Screws), 36"	121
515 109 130	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Female SCSI (Spring Latch), 18"	121
515 109 131	Cable Assembly, 68 Pin Female SCSI (Thumb Screws) to 68 Pin Female SCSI (Spring Latch), 36"	121
515 109 133	Cable Assembly, 100 Pin Male SCSI (Thumb Screws) to 100 Pin Male SCSI (Thumb Screws), 36"	123, 124
515 109 134	Cable Assembly, 100 Pin Male SCSI (Thumb Screws) to 100 Pin Male SCSI (Thumb Screws), 18"	123
515 109 143	Cable Assembly, 16 Pin .050" (1.27mm) Pitch Ribbon Cable, Double Ended, 20"	126
515 109 144	Cable Assembly, 16 Pin .050" (1.27mm) Pitch Ribbon Cable, Double Ended, 36"	126
515 109 145	Cable Assembly, 34 Pin .050" (1.27mm) Pitch Ribbon Cable, Double Ended, 20"	126
515 109 146	Cable Assembly, 34 Pin .050" (1.27mm) Pitch Ribbon Cable, Double Ended, 36"	126
515 109 162	Cable Assembly, 32 Pin .100" (2.54 mm) Pitch Ribbon Cable, Double Ended, 20"	125
515 109 163	Cable Assembly, 32 Pin .100" (2.54 mm) Pitch Ribbon Cable, Double Ended, 36"	125
610 102 107	Coaxial Contact, ITA, 18 GHz, SMA Adapter	160
610 102 108	Coaxial Contact, Receiver, 18, GHz SMA Adapter	160
610 102 109	Coaxial Contact, Receiver, 20 GHz, Crimp/Clamp for SF142B, 20 GHz	158
610 102 110	Coaxial Contact, ITA, 20 GHz, Crimp/Clamp for SF142B, 20 GHz	158
610 102 114	Coaxial Contact, Receiver/ITA, 40 GHz	162
610 102 118	Coaxial Contact, ITA, 20 GHz, T-Flex402, Solder	158
610 102 119	Coaxial Contact, Receiver, 20 GHz, T-Flex402, Solder	158
610 102 132	Coaxial Contact, ITA, 75 Ohm HD, sm59/U Belden 1855A, 2GHz, Crimp	157
610 102 133	Coaxial Contact, Receiver, 75 Ohm HD, sm59/U Belden 1855A, 2GHz, Crimp	157
610 103 115	Mini Coaxial Contact, ITA, RG316	141
610 103 129	Mini Coaxial Contact, ITA, with two .025" Square Posts for Wire Wrap	141
610 103 130	Mini Coaxial Contact, ITA, RG178	141
610 103 136	Mini Coaxial Contact, ITA, 24 AWG	141
610 103 140	Mini Coaxial Contact, ITA, Solder Sleeve, RG316 and RG178	142
610 103 150	Mini Coaxial Contact, ITA, two .025 Round Posts for PCB, .075 Spacing	141

Part #	Description	Page Number
610 103 161	Mini Coaxial Contact, ITA, for Twisted Pair	141, 146
610 103 169	Mini Coaxial Contact, ITA, Coaxial, 75 Ohm, RG179, Crimp	154
610 104 114	Mini Coaxial Contact, Receiver, RG316	141
610 104 140	Mini Coaxial Contact, Receiver, with two .025" Square Posts for Wire Wrap	141
610 104 141	Mini Coaxial Contact, Receiver, RG178	141
610 104 142	Mini Coaxial Contact, Receiver, Solder Sleeve, RG316 and RG178	142
610 104 157	Coaxial Contact, Receiver, 75 Ohm, RG179, Crimp	154
610 104 160	Mini Coaxial Contact, Receiver, Right Angle Posts for PCB Mount	148
610 110 101	Signal Contact, Receiver, , TriPaddle, 5 Amp, 20-24 AWG, 30µ" Gold	128
610 110 104	Signal Contact, Receiver, TriPaddle, 5 Amp, .025" Post for Wire Wrap, 30µ" Gold	128
610 110 108	Signal Contact, TriPaddle, ITA, 5 Amp, 20-24 AWG, 30µ" Gold	128
610 110 113	Signal Contact, TriPaddle, ITA, 5 Amp, .025" Post for Wire Wrap, 30µ" Gold	128
610 110 128	Signal Contact, TriPaddle, Receiver, 10 Amp, 14 AWG max, 50µ" Gold	128
610 110 129	Signal Contact, TriPaddle, ITA, 10 Amp, 14 AWG max, 50µ" Gold	128
610 110 167	Signal Contact, TriPaddle, Receiver, 5 Amp, 26-28 AWG, 30µ" Gold	128
610 110 169	Signal Contact, TriPaddle, ITA, 5 Amp, 26-28 AWG, 30µ" Gold	128
610 113 131	Thermocouple Contact, Receiver, Chromel	166
610 113 132	Thermocouple Contact, Receiver, Alumel	166
610 113 133	Thermocouple Contact, ITA, Chromel	166
610 113 134	Thermocouple Contact, ITA, Alumel	166
610 113 144	Twinaxial Contact, Receiver	164
610 113 145	Twinaxial Contact, ITA	164
610 115 124	Mini Power Contact, ITA, Solder, 8 AWG (max.), 50µ" Gold	138
610 115 125	Mini Power Contact, ITA, Solder, 8 AWG (max.), 30µ" Gold	138
610 115 130	Mini Power Contact, ITA, 12-14 AWG, 50µ" Gold, Crimp	138
610 116 112	Mini Power Contact, Receiver, Solder, 8 AWG (max.), 50µ" Gold	138
610 116 125	Mini Power Contact, Receiver, 12-14 AWG, 50µ" Gold, Crimp	138
610 131 101	Pneumatic Contact, Receiver, Ferruless Fitting, for 3/8" OD, .250" ID (9.5 x 6 mm) Tubing	171
610 131 104	Pneumatic Contact, Receiver, Hose Barb, for 3/8" ID [9.5 mm] Tubing	171
610 131 106	Pneumatic Contact, Receiver, Hose Barb, for 1/8" ID [4 mm] Tubing	171
610 131 107	Pneumatic Contact (with valve), Hose Barb, for 1/8" ID [4 mm] Tubing	171
610 131 108	Mini Pneumatic Contact, Receiver, Hose Barb for 0.125" (4.0mm) ID, Tubing Fits Mini Coaxial or Mini Power Modules	173
610 132 101	Pneumatic Contact, ITA, Ferruless Fitting, for 3/8" OD, .250" ID (9.5 x 6 mm) Tubing	171
610 132 104	Pneumatic Contact, ITA, Hose Barb, for 3/8" ID [9.5 mm] Tubing	171
610 132 105	Pneumatic Contact, ITA, Hose Barb, for 1/8" ID [4 mm] Tubing	171
610 132 106	Mini Pneumatic Contact, ITA, Hose Barb for 0.125" (4.0mm) ID, Tubing Fits Mini Coaxial or Mini Power Modules	173
610 138 100	Signal Contact, Receiver, QuadraPaddle, 3 Amp, Twin Female – Replacement	116
610 138 109	Signal Contact, ITA, QuadraPaddle, 3 Amp, 22–24 AWG, Crimp/Solder	116
610 138 111	Signal Contact, ITA, QuadraPaddle, 3 Amp, .025" Post for Wire Wrap	116
610 138 112	Signal Contact, ITA, QuadraPaddle, 3 Amp, 26–28 AWG, Crimp/Solder	116
610 138 115	Signal Contact, ITA, QuadraPaddle, 3 Amp, .025" Round Post Twin Male	116
610 138 116	Signal Contact, Receiver, QuadraPaddle, 3 Amp, 22-28 AWG, Crimp	116
610 138 117	Signal Contact, Receiver, QuadraPaddle, 3 Amp, Male Adapter, .025" Round Post	116
610 138 118	Signal Contact, Receiver, QuadraPaddle, 3 Amp, .025" Post for Wire Wrap	116
610 138 122	Signal Contact, ITA, QuadraPaddle, 3 Amp, .025" Square Post for Wire Wrap, with Anti-Rotation	116
610 140 101	Micro Coaxial Contact, Receiver, RG 316, Crimp	150
610 140 102	Micro Coaxial Contact, Receiver, RG 178, Crimp	150
610 140 103	Micro Coaxial Contact, Receiver, RG 179, Crimp	150
610 141 101	Micro Coaxial Contact, ITA, RG 316, Crimp	150
610 141 102	Micro Coaxial Contact, ITA, RG 178, Crimp	150
610 141 103	Micro Coaxial Contact, ITA, RG 179, Crimp	150
610 142 101	Micro Power Contact, Receiver, 12-14 AWG, Crimp	149
610 142 102	Micro Power Contact, Receiver, PCB Mount	149
610 143 101	Micro Power Contact, ITA, 12-14 AWG, Crimp	149
730 000 001	Receiver Termini Alignment Sleeve, Replacement	169
7-101 914 000-036	Signal Patchcord, ITA, TriPaddle, 10 Amp, 36", 14 AWG, Single Ended	129
7-101 914 000-072	Signal Patchcord, ITA, TriPaddle, 10 Amp, 72", 14 AWG, Single Ended	129
7-101 914 101-006	Signal Patchcord, ITA, TriPaddle, 10 Amp, 6", 14 AWG, Double Ended Jumpers	129
7-102 914 000-036	Signal Patchcord, Receiver, TriPaddle, 10 Amp, 36", 14 AWG, Single Ended	129
7-102 914 000-072	Signal Patchcord, Receiver, TriPaddle, 10 Amp, 72", 14 AWG, Single Ended	129
7-103 422 000-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", 22 AWG Twisted Pair, Single Ended	129
7-103 422 000-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", 22 AWG Twisted Pair, Single Ended	129
7-103 422 103-006	Signal Patchcord, ITA, TriPaddle, 5 Amp, 6", 22 AWG, Double Ended Jumpers	129
7-103 424 000-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", 24 AWG Twisted Pair, Single Ended	129
7-103 424 000-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", 24 AWG Twisted Pair, Single Ended	129
7-103 424 103-006	Signal Patchcord, ITA, TriPaddle, 5 Amp, 6", 24 AWG, Double Ended Jumpers	129
7-103 872 596-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", USB 2.0 Wire, to USB Type A Plug	129
7-103 872 596-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", USB 2.0 Wire, to USB Type A Plug	129
7-103 922 000-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", 22 AWG, Single Ended	129
7-103 922 000-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", 22 AWG, Single Ended	129
7-103 922 103-006	Signal Patchcord, ITA, TriPaddle, 5 Amp, 6", 22 AWG, Double Ended Jumpers	129
7-103 924 000-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", 24 AWG, Single Ended	129
7-103 924 000-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", 24 AWG, Single Ended	129
7-103 924 103-006	Signal Patchcord, ITA, TriPaddle, 5 Amp, 6", 24 AWG, Double Ended Jumpers	129
7-104 422 000-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 22 AWG Twisted Pair, Single Ended	129
7-104 422 000-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", 22 AWG Twisted Pair, Single Ended	129
7-104 424 000-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 24 AWG Twisted Pair, Single Ended	129

Part #	Description	Page Number
7-104 424 000-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", 24 AWG Twisted Pair, Single Ended	129
7-104 872 596-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", USB 2.0 Wire, to USB Type A Plug	129
7-104 872 596-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", USB 2.0 Wire, to USB Type A Plug	129
7-104 922 000-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 22 AWG, Single Ended	129
7-104 922 000-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", 22 AWG, Single Ended	129
7-104 924 000-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 24 AWG, Single Ended	129
7-104 924 000-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", 24 AWG, Single Ended	129
7-105 870 595-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", CAT5e, to RJ45 Plug	129
7-105 870 595-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", CAT5e, to RJ45 Plug	129
7-106 870 595-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", CAT5e, to RJ45 Plug	129
7-106 870 595-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", CAT5e, to RJ45 Plug	129
7-121 422 000-036	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 36", 22 AWG Twisted Pair, Single Ended	117
7-121 422 000-072	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 72", 22 AWG Twisted Pair, Single Ended	117
7-121 422 121-006	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 6", 22 AWG Twisted Pair, Double Ended Jumpers	117
7-121 424 000-036	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 36", 24 AWG Twisted Pair, Single Ended	117
7-121 424 000-072	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 72", 24 AWG Twisted Pair, Single Ended	117
7-121 424 121-006	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 6", 24 AWG Twisted Pair, Double Ended Jumpers	117
7-121 872 596-036	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 36", USB 2.0 Wire, to USB Type A Plug	117
7-121 872 596-072	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 72", USB 2.0 Wire, to USB Type A Plug	117
7-121 922 000-036	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 36", 22 AWG, Single Ended	117
7-121 922 000-072	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 72", 22 AWG, Single Ended	117
7-121 922 121-006	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 6", 22 AWG, Double Ended Jumpers	117
7-121 924 000-036	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 36", 24 AWG, Single Ended	117
7-121 924 000-072	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 72", 24 AWG, Single Ended	117
7-121 924 121-006	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 6", 24 AWG, Double Ended Jumpers	117
7-122 422 000-036	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 36", 22 AWG Twisted Pair, Single Ended	117
7-122 422 000-072	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 72", 22 AWG Twisted Pair, Single Ended	117
7-122 424 000-036	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 36", 24 AWG Twisted Pair, Single Ended	117
7-122 424 000-072	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 72", 24 AWG Twisted Pair, Single Ended	117
7-122 870 595-036	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 36", CAT5e, to RJ45 Plug	117
7-122 870 595-072	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 72", CAT5e, to RJ45 Plug	117
7-122 872 596-036	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 36", USB 2.0 Wire, to USB Type A Plug	117
7-122 872 596-072	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 72", USB 2.0 Wire, to USB Type A Plug	117
7-122 922 000-036	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 36", 22 AWG, Single Ended	117
7-122 922 000-072	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 72", 22 AWG, Single Ended	117
7-122 924 000-036	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 36", 24 AWG, Single Ended	117
7-122 924 000-072	Signal Patchcord, Receiver, QuadraPaddle, 3 Amp, 72", 24 AWG, Single Ended	117
7-123 870 595-036	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 36", CAT5e, to RJ45 Plug	117
7-123 870 595-072	Signal Patchcord, ITA, QuadraPaddle, 3 Amp, 72", CAT5e, to RJ45 Plug	117
7-232 912 000-036	Mini Power Patchcord, Receiver, 40 Amp, 36", 12 AWG, White Wire, Single Ended	138
7-232 912 000-072	Mini Power Patchcord, Receiver, 40 Amp, 72", 12 AWG, White Wire, Single Ended	138
7-241 912 000-036	Mini Power Patchcord, ITA, 40 Amp, 36", 12 AWG, White Wire, Single Ended	138
7-241 912 000-072	Mini Power Patchcord, ITA, 40 Amp, 72", 12 AWG, White Wire, Single Ended	138
7-251 912 000-036	Power Patchcord, ITA, Micro Power, 36", 12 AWG White, Single Ended	149
7-251 912 000-072	Power Patchcord, ITA, Micro Power, 72", 12 AWG White, Single Ended	149
7-252 912 000-036	Power Patchcord, Receiver, Micro Power, 36", 12 AWG White, Single Ended	149
7-252 912 000-072	Power Patchcord, Receiver, Micro Power, 72", 12 AWG White, Single Ended	149
7-331 116 000-036	Mini Coaxial Patchcord, ITA, 50 Ohm, 36", RG316, Single Ended	141
7-331 144 000-036	Mini Coaxial Patchcord, ITA, 50 Ohm, 36", SM405, Single Ended	141
7-332 116 000-036	Mini Coaxial Patchcord, Receiver, 50 Ohm, 36", RG316, Single Ended	141
7-332 144 000-036	Mini Coaxial Patchcord, Receiver, 50 Ohm, 36", SM405, Single Ended	141
7-333 178 000-036	Mini Coaxial Patchcord, ITA, 50 Ohm, 36", RG178, Single Ended	141
7-334 178 000-036	Mini Coaxial Patchcord, Receiver, 50 Ohm, 36", RG178, Single Ended	141
7-335 924 000-036	Mini Coaxial Patchcord, ITA, 50 Ohm, 36", 24, Single Ended	141
7-338 116 000-036	Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 36", RG316, Single Ended	142
7-338 116 000-072	Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 72", RG316, Single Ended	142
7-338 144 000-036	Mini Coaxial Solder Sleeve Pathccord, Receiver, 50 Ohm, 36", SM405, Single Ended	141, 142
7-338 144 000-072	Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 72", SM405, Single Ended	142
7-338 178 000-036	Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 36", RG178, Single Ended	141, 142
7-338 178 000-072	Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 72", RG178, Single Ended	142
7-339 116 000-036	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 36", RG316, Single Ended	142
7-339 116 000-072	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 72", RG316, Single Ended	142
7-339 144 000-036	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 36", SM405, Single Ended	142
7-339 144 000-072	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 72", SM405, Single Ended	142
7-339 178 000-036	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 36", RG178, Single Ended	142
7-339 178 000-072	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 72", RG178, Single Ended	142
7-361 116 000-036	Micro Coaxial Patchcord, ITA, 36", RG316 Tan, Single Ended	150
7-362 116 000-036	Micro Coaxial Patchcord, Receiver, 36" RG316 Tan, Single Ended	150
7-363 178 000-036	Micro Coaxial Patchcord, ITA, 36", RG178BU Tan, Single Ended	150
7-364 178 000-036	Micro Coaxial Patchcord, Receiver, 36", RG178BU Tan, Single Ended	150
7-365 179 000-036	Micro Coaxial Patchcord, ITA, 36", RG179U Tan, Single Ended	150
7-366 179 000-036	Micro Coaxial Patchcord, Receiver, 36" RG179U Tan, Single Ended	150
7-381 179 000-036	Coaxial Patchcord, ITA, 75 Ohm, 36", RG179, Single Ended	154
7-381 179 000-072	Coaxial Patchcord, ITA, 75 Ohm, 72", RG179, Single Ended	154
7-382 179 000-036	Coaxial Patchcord, Receiver, 75 Ohm, 36", RG179, Single Ended	154
7-382 179 000-072	Coaxial Patchcord, Receiver, 75 Ohm, 72", RG179, Single Ended	154
7-383 143 000-036	20 Ghz Coaxial Patchcord, ITA, 50 Ohm, 36", SF142B, Single Ended	158

Part #	Description	Page Number
7-383 143 000-072	20 Ghz Coaxial Patchcord, ITA, 50 Ohm, 72", SF142B, Single Ended	158
7-384 143 000-036	20 Ghz Coaxial Patchcord, Receiver, 50 Ohm, 36", SF142B, Single Ended	158
7-384 143 000-072	20 Ghz Coaxial Patchcord, Reciever, 50 Ohm, 72", SF142B, Single Ended	158
7-387 102 000-036	20 GHz Coaxial Patchcord, ITA, 50 OHM, 36", TFlex 402, Single Ended	158
7-387 102 000-072	20 GHz Coaxial Patchcord, ITA, 50 OHM, 72", TFlex 402, Single Ended	158
7-388 102 000-036	20 GHz Coaxial Patchcord, Receiver, 50 OHM, 36", TFlex 402, Single Ended	158
7-388 102 000-072	20 GHz Coaxial Patchcord, Receiver, 50 OHM, 72", TFlex 402, Single Ended	158
7-401 423 000-036	Twinaxial Patchcord, ITA, 30 Amp, 36", 22 AWG T/P Shield, Single Ended	164
7-401 423 000-072	Twinaxial Patchcord, ITA, 30 Amp, 72", 22 AWG T/P Shield, Single Ended	164
7-402 423 000-036	Twinaxial Patchcord, Receiver, 30 Amp, 36", 22 AWG T/P Shield, Single Ended	164
7-402 423 000-072	Twinaxial Patchcord, Receiver, 30 Amp, 72", 22 AWG T/P Shield, Single Ended	164
7-405 804 503-036	Fiber Optic Patchcord, ITA with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to FC with SPC Polish	169
7-405 804 506-036	Fiber Optic Patchcord, ITA with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to ST with SPC Polish	169
7-405 804 509-036	Fiber Optic Patchcord, ITA with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to SC with SPC Polish	169
7-405 804 512-036	Fiber Optic Patchcord, ITA with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to LC with SPC Polish	169
7-406 804 503-036	Fiber Optic Patchcord, Receiver with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to FC with SPC Polish	169
7-406 804 506-036	Fiber Optic Patchcord, Receiver with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to ST with SPC Polish	169
7-406 804 509-036	Fiber Optic Patchcord, Receiver with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to SC with SPC Polish	169
7-406 804 512-036	Fiber Optic Patchcord, Receiver with SPC Polish, 36", Multimode Fiber Optic 62.5/125 Grey, to LC with SPC Polish	169
7-409 803 000-036	Thermocouple Patchcord, ITA, 36", 20 AWG, Chromel and Alumel, Single Ended	166
7-409 803 000-072	Thermocouple Patchcord, ITA, 72", 20 AWG, Chromel and Alumel, Single Ended	166
7-410 803 000-036	Thermocouple Patchcord, Receiver, 36", 20 AWG, Chromel and Alumel, Single Ended	166
7-410 803 000-072	Thermocouple Patchcord, Receiver, 72", 20 AWG, Chromel and Alumel, Single Ended	166
7-411 873 000-036	Coaxial Patchcord, ITA, 75 Ohm HD, 36", sm59/U, Single Ended	157
7-411 873 000-072	Coaxial Patchcord, ITA, 75 Ohm HD, 72", sm59/U, Single Ended	157
7-412 873 000-036	Coaxial Patchcord, Receiver, 75 Ohm HD, 36" sm59/U, Single Ended	157
7-412 873 000-072	Coaxial Patchcord, Receiver, 75 Ohm HD, 72" sm59/U, Single Ended	157
7-528 143 528-036	Coaxial Patchcord, SMA Plug, 36", SF142 Tan, Double Ended	160
7-528 143 528-072	Coaxial Patchcord, SMA Plug, 72", SF142 Tan, Double Ended	160
7-531 102 531-036	Coaxial Patchcord, SMA Plug, 36", TFlex 402 Blue, Double Ended	160
7-531 102 531-072	Coaxial Patchcord, SMA Plug, 72", TFlex 402 Blue, Double Ended	160
910 101 102	Tool, Crimp, 10 Amp TriPaddle Signal/Thermocouple, Receiver and ITA	133, 153, 166
910 101 103	Tool, Crimp, QuadraPaddle and TriPaddle Contacts, Locator Required	120, 33
910 101 115	Tool, Crimp, Mini Coaxial Contacts	146
910 101 118	Tool, Crimp, Mini Coaxial Contacts, ITA, 24 AWG Wire	146
910 101 125	Tool, Crimp, QuadraPaddle, Receiver	120
910 101 131	Tool, Crimp, Micro Coaxial RG178, Receiver and ITA	153
910 101 132	Tool, Crimp, Micro Coaxial, RG179 & RG316, Receiver and ITA	153
910 102 106	Tool Kit, Coaxial, Receiver, for 75 Ohm	156
910 102 107	Tool Kit, Coaxial, ITA for 75 Ohm	156
910 104 107	Tool, Locator, Signal, (for Part # 610 110 108 and 610 110 169)	133, 156
910 104 116	Tool, Locator, Receiver, TriPaddle, 14 AWG	133
910 104 118	Tool, Locator, ITA, TriPaddle, 14 AWG	133
910 104 127	Tool, Locator with Wire Stop, (for Part # 610 110 101 and 610 110 167)	133
910 104 128	Tool, Locator, Mini Coaxial Contacts, 24 AWG Wire	146
910 104 134	Tool, Locator, Receiver, Thermocouple	166
910 104 135	Tool, Locator, ITA, Thermocouple	166
910 104 139	Tool, Hex Crimp for Outer Shield, 75 Ohm Coaxial, Receiver and ITA Contacts	156, 157
910 104 140	Tool, Locator, QuadraPaddle, ITA Contact	120
910 104 144	Tool, Locator, Micro Power, ITA	153
910 104 145	Tool, Locator, Micro Power, Receiver	153
910 110 102	Tool, Extraction, Receiver and ITA, Signal/Thermocouple	133, 166
910 110 111	Tool, Extraction, ITA, QuadraPaddle	120
910 110 112	Tool, Extraction, Receiver, QuadraPaddle	120
910 112 104	Tool, Extraction, Mini Power/Coaxial	138, 146, 173
910 112 115	Tool, Extraction, 18 GHz for Receiver Contact	160
910 112 117	Tool, Extraction, for 75 Ohm and 20 GHz Receiver and ITA Contacts	156, 157
910 112 118	Tool, Extraction, Termini and Alignment Sleeve	169
910 112 123	Tool, Extraction, Micro Power/Micro Coaxial Contacts	153
910 121 119	Tool, Center Conductor Forming Receiver (before assembly)	146
910 121 126	Outer Shield Conductor Forming Tool (ITA–forms or closes shield)	147
910 121 131	Tool, Weight Gage Kit for Mini Coaxial Contacts, Receiver	147
910 121 142	Tool, Outer Shield Conductor Expanding	147
910 121 143	Tool, Center Conductor Enlarging, Receiver	147
910 121 144	Solder Kit for Solder Sleeve Mini Coaxial Contact includes Raychem Holding Fixture (AD-1319) and Adapter (Part # 910 121 149)	146
910 121 149	Adapter for use with Raychem Holding Fixture (AD-1319-29)	146
910 121 155	Tool, Weight Gage Kit for Mini Coaxial Contacts, ITA	147
910 121 156	Tool, Inspection Depth Gage for Mini Coaxial Contacts, Receiver	147
910 121 157	Tool, Inspection Depth Gage for Mini Coaxial Contacts, ITA	147
910 121 160	Steinel Heat Gun with Nozzle – 110V	146
910 121 165	Tool, 18 GHz Wrench for ITA Contact Installation and Removal	160
910 121 167	Steinel Heat Gun with Nozzle – 220V	146
910 121 170	Fiber Optic Cleaning Kit	169
910 121 172	Module Accessory Kit, Quantity 5, 3/32 Allen Wrenches	111
910 121 174	Allen Wrench Kit, Contains 3/32, 7/64 and 5/32	111
910 121 179	Tool, Inspection Depth Gage, Micro Coaxial, Receiver	153
910 121 180	Tool, Inspection Depth Gage, Micro Coaxial, ITA	153

TECHNICOME.COM
www.technicome.com
ZA de Pissaloup - Rue E. Branly - CS 10527
78197 TRAPPES CEDEX - FRANCE
Tél: (0)1 30 69 15 00 - Fax : (0)1 30 69 15 01

Standard Units of Measurement
[mm]
inches

Tolerance .xxx = ± .005
.xx = ± .010

Technical information in this document is subject to change without notice.

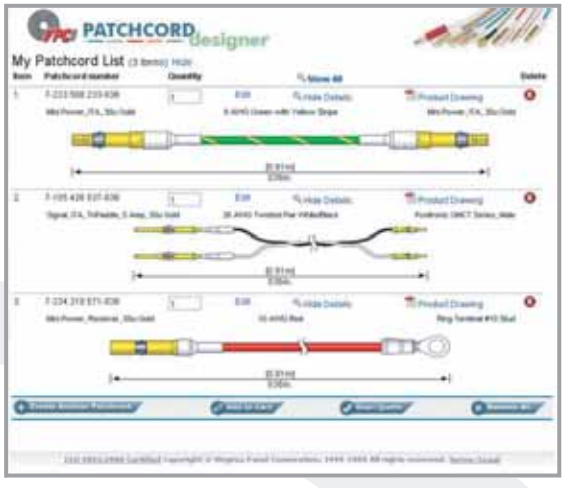
© 2008 Virginia Panel Corporation. All rights reserved.

4/15/2008

More Information from VPC!

If you can't find what you need in the Mass InterConnect Solutions Product Catalog, please visit our website. More detailed information about each product is available such as product drawings, specifications, tech tips, and user's manuals. In addition to this, our advanced search tool can help you find the products that best suit your needs that may not be available in the catalog. You can also find downloadable literature such as catalogs, brochures and flyers. If you would like to learn more about what VPC can do for you, please visit **vpc.com.**

Design your own Patchcords with our new Patchcord Designer. This design tool allows you to instantly engineer patchcords to your specifications, choosing from over 100 different wires and contacts. New choices are added regularly. An image of your configuration instantly appears as your selections are made, and a detailed drawing is created for you containing a complete Bill of Material list. Go to: **vpc.com/patchcorddesigner.**



Discover the new iCon solution, a connector developed to meet the critical and changing demands of the Test and Measurement industry. iCon integrates our reliable contacts and modules into a compact format that can be used with both our standard Mass InterConnect Solutions and stand-alone applications. The iCon Product Catalog includes all of the components necessary to complete your connector such as contacts, modules tools and various accessories. To request an iCon catalog, please visit **vpc.com/contact_us/catalog_request.**

VPC Virginia Panel Corporation

NORTH AND SOUTH AMERICA
1400 New Hope Road
Waynesboro, VA 22980
United States
Phone: +1 540 932 3300
Email: info@vpc.com

EUROPE, MIDDLE EAST, AFRICA
Utrechthaven 11C
3433 PN Nieuwegein
Netherlands
Phone: +31 30 6000787
Email: info.emea@vpc.com

ASIA, AUSTRALIA
PO Box 86098
140 Gillies Avenue
Hung Hom, Kowloon
Hong Kong
Phone: +852 2356 8635
Email: info.asia@vpc.com